OPTIONS FOR FISCAL STRUCTURE REFORM IN MASSACHUSETTS /

Federal Reserve
Bank of Boston
Research Report 57

March 1975

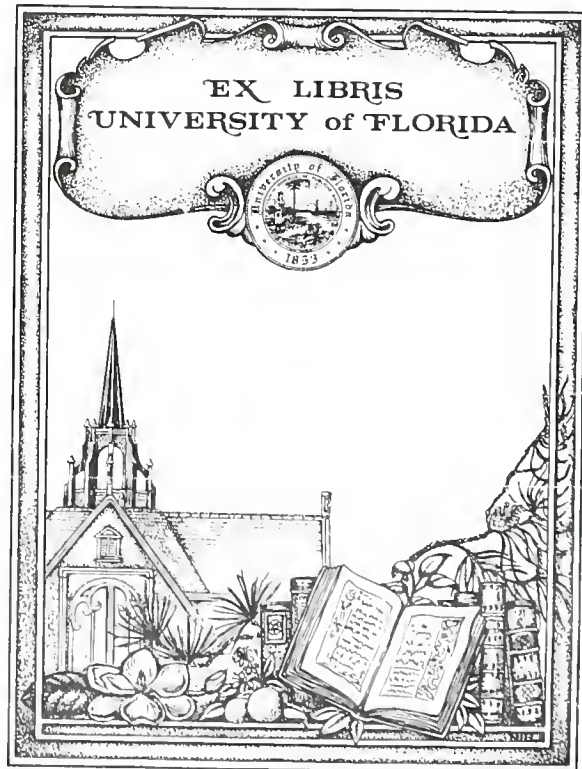Robert W. Eisenmenger
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by

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FOREWORD

Massachusetts has one of the highest overall levels of taxation in the United States and its state-local revenue structure depends disproportionately on local property taxes. Tax reform and relief of excessive local property tax burdens have been serious concerns in the Commonwealth for some time. These concerns are all the more pressing in the wake of the Sudbury decision requiring full valuation of property for tax purposes and the current squeeze on the State budget.

This report is the product of a systematic examination of available options for fiscal structure reform in Massachusetts, including possibilities for raising new state revenues and alternative uses of state funds for property tax reduction. The various options are analyzed in terms of their implications for the total state-local revenue structure and their impact on tax burdens of people in different income groups and different types of cities and towns.

The report is essentially a technical document designed to assist citizens and policymakers considering alternative approaches to fiscal reform. The choices are by no means easy, but we can only hope that our work will be useful for the formulation and analysis of policy alternatives.

Frank E. Morris
President

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ACKNOWLEDGMENTS

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Part I OVERVIEW

Chapter 1

INTRODUCTION

Massachusetts fiscal structure is seriously out of balance with an extremely heavy dependence on the local property. As a result of excessive reliance on the property tax our tax structure is neither conducive nor responsive to economic growth. Economic decisions are distorted by large variations in tax rates among communities, and heavy local property tax burdens underlie or exacerbate many of the economic and social problems facing the state.

While reduced reliance on the local property tax has always been a desirable objective, the implications of court ordered 100 percent valuation have added increased urgency for tax reform in Massachusetts.[1] In order to evaluate alternative fiscal options, this study presents a framework for simulating the impact on individuals in each income class and in each community of any proposed change in Massachusetts' fiscal structure.

Massachusetts' Fiscal Structure

Massachusetts has one of the highest overall levels of taxation in the United States. In 1973, total state and local taxes amounted to 14.8 percent of personal income compared to a national average of 12.9 percent. Local property taxes in Massachusetts account for one-half of total state-local tax revenues, while they represent only slightly more than one-third of revenues nationally. The average property tax rate in Massachusetts is substantially higher than in the rest of the United States.

Not only is the average property tax rate high in Massachusetts but there is also significant variation among cities and towns. On an equalized basis

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[1] *Town of Sudbury and others* vs. *Commissioner of Corporation and others*, 321 N.E. 2d 641 (1974)

property tax rates range from $4.77 per $1,000, which would be low in any state, to a painfully high $164.68 per $1,000. In general the highest tax rates are found in our older industrial cities, where equalized valuation per capita is lower and spending requirements tend to be higher than in neighboring suburban towns or rural areas.

The heavy reliance on property taxes in Massachusetts and the wide variation in rates combine to produce a system that is regressive and inequitable, is socially divisive, promotes poor planning, discourages investment in building and deters economic growth.

In addition to all the existing problems associated with the dependence on the local property tax, the court mandated 100 percent valuation may raise the burden on some properties to the point where they are no longer economically viable. Although Massachusetts tax law has always stipulated 100 percent valuation, the high level of property taxes in Massachusetts had led many cities and towns to assess different types of property at varying percentages of their actual value. The recent court decision in the Sudbury case will force all assessors to value property at full market value.

The 100 percent valuation ruling will not change the overall amount of revenue generated by the property tax, but it will change the distribution of burden among different classes of property within a given community. In the only study of the potential effect of 100 percent valuation completed thus far, and using preliminary data for Boston alone, Professor Oldman of Harvard and Professor Holland of M.I.T. estimated that on average the property tax burden on residential property would increase by about 20 percent while that on commercial property would decrease by about 19 percent.[1] There would also be important

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[1] Daniel M. Holland and Oliver Oldman, Estimating the Impact of 100% of Market Value Property Tax Assessments of Boston Real Estate, The Boston Urban Observatory, August 1974

changes within each of these groups. For example, while the overall burden
on commercial property would decline, the Oldman-Holland study estimates there
would be about an 80 percent increase in the tax burden on new office buildings
now operating under tax agreements. This increase in the tax burden on new
buildings could make any new major construction in downtown Boston uneconomic.

The Study

In response to the urgent need for fiscal reform in Massachusetts, we have
developed a framework to analyze the impact on individuals in each city and town
of alternative fiscal reform programs. This study goes beyond local property tax
relief and embraces the entire system of raising revenues at both the state and
local level and the allocation of those revenues to spending jurisdictions. Thus,
consideration of programs for state aid to local governments is an important part
of the report, as is the possibility of state financing of public education.

Chapters 2 through 13 of this report cover various aspects of the present
fiscal situation in Massachusetts in detail. The overall tax burden in the state
and the problem of expenditure control are the subjects of Chapters 2 and 3,
respectively. Local revenues and local aid are examined in Part II (Chapters 4
through 9), and Part III deals with the major existing state revenue sources
(Chapters 10 through 13). As different options for reform are discussed in these
sections, their implications are shown in terms of tax rate changes for every
city and town in the state or in terms of their impact on the distribution of tax
burden by income class.

Finally, the various reform alternatives are combined in Part IV to form
examples of three distinct types of reform "packages." These sample plans are
evaluated in terms of their impact on the overall state-local revenue structure
and their implications for the distribution of the total state-local tax burden

for individuals in different income classes and different types of cities and towns (Chapter 14). The entire report is summarized in Chapter 15.

An example of the impact of one of the reform "packages" on individuals in two sample towns, Abington and Yarmouth, will clarify how this study can be useful. Plan IIIA is a comprehensive reform package involving $1,377 million in new state revenues, coming from increases in both the income and sales taxes and from the introduction of a statewide property tax yielding $947 million. The proceeds are used to fund an additional $250 million in equalizing municipal grants, comprehensive revision of the state school finance system, $35 million for sales tax credits and $30 million for partial reimbursement to cities and towns of property tax abatements. The sources and uses of state funds can be summarized as follows:

Sample Plan
(millions)

New State Sources		Uses of Funds	
Statewide Property Tax	$ 947	Revised School Finance	$1,062
Individual Income Tax	145	Equalizing Municipal Grants	250
Sales & Excise Tax Increases	285	Larger Sales Tax Credit	35
		Reimbursement for Abatements	30
	$1,377		$1,377

This study can be used to calculate the impact on individuals in selected income classes in both Abington and Yarmouth of moving from the present fiscal structure to a reform package like Plan IIIA. Effective sales and income tax rates for different income groups are presented in Table 14-3. These figures, which are derived from the basic data in Chapters 11 and 13, are available

for the current yield from both the income and sales taxes and for the increased revenues required under Plan IIIA.

Since the income and sales are state taxes, the rates are the same for individuals within a given income class regardless of where they live. Property tax rates, however, vary by locality as well as income class. Equalized property tax rates for Abington and Yarmouth under the present system are presented in Table 4-1 and amount to $32.60 and $17.42 per $1,000, respectively. Actual property taxes paid by individuals in the different income classes in the two towns are calculated by multiplying the equalized property tax rates by the relevant house values. House value data by town and by income class are available from the 1970 Census.

The new property tax rates under Plan IIIA can be computed from the data in the Appendices to Chapters 4, 7 and 8. The property tax rate in Abington is reduced by $3.99 per $1,000 under the equalizing municipal grant program, by $.41 per $1,000 from the partial reimbursement for property tax abatements and by $.21 per $1,000 under the comprehensive school finance program with a statewide property tax. These three changes reduce the equalized property tax rate from $32.60 to $27.99 per $1,000. The comparable figures for Yarmouth are a reduction of $1.21 and $.19 per $1,000 under the grant and abatement reimbursement programs with an offsetting increase of $2.00 per $1,000 under the school finance plan yielding a new property tax rate of $18.20 per $1,000.

Income, sales and property tax rates under the existing structure and under the hypothetical Plan IIIA are summarized in Table 1-1. Under the existing system, tax rates are considerably higher in Abington than in Yarmouth and the tax burden is regressive in both towns. The effect of the comprehensive reform Plan IIIA is to reduce the rate differential between the two towns and to

Table 1-1. Distributional Impact of Moving from Existing Fiscal Structure
to Comprehensive Sample Reform Plan

Income Class	Abington Taxes as a Percent of Income				Yarmouth Taxes as a Percent of Income			
	Sales	Income[1]	Property	Total	Sales	Income[1]	Property	Total
				Existing Fiscal Structure				
$ 9,000	1.5	3.3	5.8	10.6	1.5	3.3	4.2	9.0
15,000	1.1	3.6	4.0	8.7	1.1	3.6	2.8	7.5
22,000	1.0	4.2	3.1	8.3	1.0	4.2	2.2	7.4
45,000	.8	4.9	2.4	8.1	.8	4.9	1.7	7.4
				Sample Plan IIIA				
$ 9,000	2.3	3.4	5.0	10.7	2.3	3.4	4.3	10.0
15,000	2.1	3.8	3.4	9.3	2.1	3.8	2.9	8.8
22,000	2.0	4.7	2.6	9.3	2.0	4.7	2.3	9.0
45,000	1.7	6.2	2.1	10.0	1.7	6.2	1.8	9.7

Source: See text.

[1] Assume revenue is raised by piggybacking Federal tax liability for Plan IIIA.

mitigate the regressivity through the introduction of a more progressive income tax based on the individual's Federal tax liability. While Plan IIIA improves the distribution of tax burden between the two towns and among the income classes, this reform plan also increases the tax burden on all individuals. The higher tax rates occur because a large portion of the benefits of property tax reductions accrue to business where the reduction is financed by income and sales taxes levied on individuals. In view of the increase in individual tax burden, an alternative plan which increases business taxes to offset a portion of property tax reductions may be more desirable.

This study provides the data to determine the impact not only of varying distributions of tax burden between business and individuals, but also the effect of a variety of school finance reforms and local aid formulas. Policy-makers should be able to construct and simulate the impact of several reform packages and thereby make a more informed decision about the direction of fiscal reform in Massachusetts.

Chapter 2

THE TAX BURDEN IN MASSACHUSETTS

Alicia H. Munnell

Are Massachusetts taxes significantly out of line with other states?
Does this state's revenue structure differ from average? How is the tax
burden shared between individuals and business? To answer these questions,
the Massachusetts tax burden on both business and individuals will be
compared to taxes in other comparable and competing states. The conclu-
sions reached are that 1) Massachusetts relies too heavily on the local
property tax, 2) the total individual tax burden is somewhat above the
national average, and 3) business taxes are quite high with the levy on
insurance companies and electric utilities dramatically out of line with
other states.

Massachusetts' revenue structure (including nontax revenues)
differs from both the average for the nation and from most other
New England and industrial states. This difference involves the small
share of revenue emanating from fees and charges and the consequent
heavy dependence on local taxes -- exclusively the property tax.
(See Table 2-1.) In Massachusetts 36 percent of general revenue is
raised by the local property tax, compared to 23 percent for the Nation
as a whole. On the other hand Massachusetts is very close to the
national average in the share of revenue raised by state taxes, although
the composition of Massachusetts state revenues differs dramatically
from most other states. Massachusetts raises 43 percent of its revenues
from the individual income tax and 11 percent from the general sales
tax, compared to a national average of 23 percent from the income tax
and 29 percent from the sales tax.

TABLE 2-1

PERCENTAGE DISTRIBUTION OF STATE AND LOCAL GENERAL REVENUE AND TOTAL TAXES, 1973

| | State and Local General Revenue | | | | | State and Local Taxes | |
| | | Local Taxes | | Non-Tax | | | |
	State Taxes	Property Tax	Other	Federal Aid	Charges	State Taxes	Local Taxes
U.S. Average	35.8%	23.1%	4.8%	20.6%	15.7%	56.2%	43.8%
Massachusetts	35.0	35.5	0.3	18.3	10.9	49.5	50.5
Other New England States							
Connecticut	37.5	35.5	0.3	15.3	11.4	51.1	48.9
Maine	37.2	27.4	0.2	23.7	11.5	57.4	42.6
New Hampshire	27.7	35.6	0.5	21.0	15.2	43.4	56.6
Rhode Island	36.6	24.7	0.3	26.4	12.0	59.3	40.7
Vermont	36.9	23.0	0.5	25.8	13.8	61.1	38.9
Industrial States							
California	31.1	29.3	4.4	21.5	13.7	48.1	51.9
Illinois	36.3	27.2	4.6	20.4	11.5	53.4	46.6
Indiana	33.6	32.8	0.3	14.8	18.5	50.3	49.7
Michigan	39.2	22.4	2.2	19.7	16.5	61.4	38.6
New Jersey	29.0	37.7	3.4	15.7	14.2	41.4	58.6
New York	33.3	23.7	9.4	20.2	13.4	50.1	49.9
Ohio	34.2	24.6	6.5	16.0	18.7	52.5	47.5
Pennsylvania	44.0	18.0	7.7	18.1	12.2	63.1	36.9
Wisconsin	42.1	25.9	0.4	16.3	15.3	61.5	39.5
Southern States							
Florida	43.2	18.0	4.2	15.6	19.0	66.0	34.0
Georgia	37.0	16.3	3.1	23.9	19.7	65.7	34.3
North Carolina	45.9	13.7	2.5	23.1	14.8	73.9	26.1
South Carolina	44.4	12.1	0.8	24.5	18.2	77.4	22.6
Texas	34.2	22.3	3.4	20.6	19.5	57.1	42.9

Source: U.S. Department of Commerce, Bureau of the Census, Governmental Finances in 1972-1973, Series GF73, No. 5, Table 17, pp. 31-33.

In 1973, Massachusetts' total state and local taxes amounted to of personal income compared to 13 percent for the national average. (See Table 2-2.) This ratio placed Massachusetts sixth in national ranking, behind California, Minnesota, New York, Vermont and Wisconsin. For the southern states, total taxes amounted to about 13.3 percent of personal income, considerably below both Massachusetts and the national average. Massachusetts had moved up from twentieth in the nation in 1968, and this 1968-1973 increase in tax burden is the result of numerous legislative increases in all taxes during this period.[1]

The overall tax burden can be divided between taxes levied on individuals and those levied on business. Massachusetts is somewhat below the national average in the share of taxes from individuals. At the same time, the high level of local property taxes in Massachusetts places the overall individual tax burden above that for the nation.

Individuals

As shown in Table 2-3, the property tax is the largest source of revenue raised from individuals. In 1973, the share of individual taxes coming from the property tax was 47 percent of Massachusetts compared to 34 percent for the Nation. However, most other New England and industrial states were also above the national average. The southern states, once again, fell below the average for the nation.

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[1]1968, personal income tax -- eliminated 1/2 of deduction for Federal income taxes.

1969, cigarettes -- 2¢ per package increase; general tax increases: 14 percent surtax on most taxes except income, sales, cigarettes, and gasoline. Personal income tax -- eliminated remaining 1/2 of deduction for Federal income taxes. Revised inheritance tax rates.

1971, cigarettes -- 4¢ per package increase; gasoline -- 1¢ per gallon increase; personal income tax -- general revisions adopting certain federal definitions. Rate increases: business income, 4 percent to 5 percent; "unearned" income, 8 percent to 9 percent. Massachusetts savings deposit interest taxed at 5 percent.

TABLE 2-2

TOTAL STATE AND LOCAL TAXES AS A PERCENT OF PERSONAL INCOME:
1963, 1968, 1973

	Taxes as Percent of Personal Income			Percent Change		National Rank	
	1963	1968	1973	1963-1968	1968-1973	1968	1973
U.S. Average	9.6	10.8	12.9	12.5	19.4	–	–
Massachusetts	9.6	11.2	14.8	16.7	32.1	20	6
Other New England States							
Connecticut	8.5	9.1	13.6	7.1	49.5	46	11
Maine	10.2	10.5	14.2	2.9	35.2	27	7
New Hampshire	9.0	9.1	11.0	1.1	20.9	47	42
Rhode Island	9.7	10.1	12.2	4.1	20.8	31	27
Vermont	11.5	12.5	16.8	8.7	34.4	6	2
Industrial States							
California	10.7	13.4	14.9	25.2	11.2	3	5
Illinois	8.5	8.9	11.9	4.7	33.7	49	31
Indiana	8.6	9.7	10.8	12.8	11.3	38	44
Michigan	10.2	11.0	13.0	7.8	18.2	21	15
New Jersey	8.5	9.6	12.0	12.9	25.0	39	28
New York	10.9	13.2	17.0	21.1	28.8	4	1
Ohio	8.2	8.7	10.4	6.1	19.5	50	48
Pennsylvania	8.5	9.4	13.0	10.6	38.3	42	14
Wisconsin	12.1	12.3	15.8	1.7	28.5	11	3
Southern States							
Florida	9.4	10.4	11.9	10.6	14.4	29	30
Georgia	8.8	9.8	11.2	11.4	14.3	33	40
North Carolina	9.2	9.9	11.3	7.6	14.1	32	38
South Carolina	9.0	9.4	11.5	4.4	22.3	43	36
Texas	9.2	8.9	10.6	-3.3	19.1	48	45

Source: U.S. Department of Commerce, Bureau of Census, Governmental Finances in 1972-1973, Series GF73, No. 5, Table 24, p. 50, and historical data.

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TABLE 2-3

COMPARISON OF INDIVIDUAL INCOME, SALES & PROPERTY TAXES, 1973

	Taxes on Individuals (In Percent)				Total Taxes on Individuals as a Percent of	
	Individual Income	Sales	Property[1]	Other	Personal Income	Total Taxes
U.S. Average	15.6	33.4	34.2	16.8	9.4	82.3
Massachusetts	27.0	19.1	47.0	6.9	10.6	78.2
Other New England States						
Connecticut	2.9	39.7	48.7	8.7	9.5	77.4
Maine	7.3	48.8	37.2	6.7	10.2	80.9
New Hampshire	2.7	26.5	55.7	15.1	7.5	77.1
Rhode Island	16.4	39.3	38.5	5.8	8.8	78.2
Vermont	21.4	29.9	31.0	17.7	12.3	80.9
Industrial States						
California	15.2	27.2	44.5	13.1	10.9	81.6
Illinois	15.6	32.4	36.6	15.4	8.8	83.3
Indiana	13.0	33.7	45.8	7.5	8.3	87.6
Michigan	20.3	36.6	33.7	9.4	9.1	79.5
New Jersey	0.7	33.1	53.5	12.7	8.5	78.9
New York	25.2	22.3	28.6	23.9	12.2	78.2
Ohio	9.0	35.1	37.5	18.4	7.6	80.9
Pennsylvania	18.8	35.4	24.5	21.3	9.1	77.8
Wisconsin	29.1	28.1	36.5	6.3	11.5	82.5
Southern States						
Florida	–	53.7	27.4	18.9	8.7	87.4
Georgia	16.0	47.6	26.7	9.7	8.5	85.7
North Carolina	24.2	40.9	21.8	13.1	7.9	79.5
South Carolina	21.1	55.8	16.0	7.1	8.2	81.5
Texas	–	39.0	35.3	25.7	7.9	86.0

[1]Only the portion of the property tax falling on residential property is included. The apportioning of property was based upon the data in Census of Governments, U.S. Bureau of the Census, 1967.

Sources: State Tax Collections in 1973, Table 3, p. 7; Table 4, p. 8; Table 5, p. 9; and Table 6, p. 10.
Governmental Finances in 1972-1973, Bureau of the Census, Table 17, pp. 31-33.

There is no doubt that Massachusetts homeowners have been especially hard hit by the local property tax; Massachusetts property tax rates are among the highest in the nation. The average effective property tax rate on single-family homes with FHA-insured mortgages in Massachusetts was almost 60 percent higher than the national average, ranking Massachusetts third highest in the nation. (See Table 2-4.) Measuring nonbusiness property taxes as a percent of personal income, Massachusetts was first in the nation.

Massachusetts not only has one of the heaviest property tax burdens in the nation, but this state also ranked sixth when individual income tax revenues were measured as a percent of personal income. (See Table 2-5.) In 1973, Massachusetts income tax levy amounted to 2.8 percent of personal income, which was equivalent to about one-fourth of Federal income tax liabilities. Estimates for 1975 indicate that in the coming fiscal year, income tax revenues will amount to 3.1 percent of personal income or 27.5 percent of Federal liabilities.

Massachusetts has exploited the revenue potential of both the property and the individual income tax, but this state has made relatively little use of the general sales tax. The Massachusetts general sales tax rate of 3 percent is quite low compared to other states, but the extensive exemptions are equally responsible for the small revenues. Sales tax revenues amount to only 0.8 percent of personal income in Massachusetts compared to 1.3 percent to percent in other states with equivalent rates. (See Table 2-6.)

For 1973, total taxes on individuals including property, income, general and selective sales taxes amounted to 10.7 percent of personal income. This individual tax burden in Massachusetts was somewhat in excess of the national average. The low level of sales tax tended to offset the extensive

TABLE 2-4

NONBUSINESS PROPERTY TAXES, SELECTED STATES

| | Average Effective Property Tax Rates* | | | | Nonbusiness Property Tax as % of Personal Income | |
| | Rate | | | National Rank | Percent | 1973 National Rank |
	1962	1966	1972	1972		
U.S. Average	1.5	1.7	2.0	-	3.2	-
Massachusetts	2.5	2.8	3.1	2	5.0	1
Other New England States						
Connecticut	1.8	2.0	2.4	12	4.6	4
Maine	1.8	2.2	2.4	13	3.8	16
New Hampshire	2.0	2.4	3.1	3	4.1	9
Rhode Island	1.9	2.0	2.2	15	3.8	14
Vermont	2.1	2.3	2.5	8	3.8	13
Industrial States						
California	1.7	2.0	2.5	11	4.9	3
Illinois	1.8	2.0	2.2	19	3.2	21
Indiana	1.0	1.6	2.0	22	3.8	17
Michigan	1.8	1.8	2.0	21	3.1	23
New Jersey	2.2	2.6	3.0	4	4.6	5
New York	2.2	2.4	2.7	9	3.5	19
Ohio	1.2	1.4	1.5	37	2.8	29
Pennsylvania	1.8	1.9	2.2	16	2.2	34
Wisconsin	2.2	2.3	3.0	5	4.2	8
Southern States						
Florida	.7	1.1	1.4	38	2.4	32
Georgia	.9	1.3	1.4	37	1.9	40
North Carolina	1.1	1.3	1.6	30	1.7	41
South Carolina	.5	.6	.9	46	1.3	49
Texas	1.4	1.6	1.9	24	2.8	30

Source: Federal State-Local Finances: Significant Features of Fiscal Federalism, Advisory Commission on Intergovernmental Relations, Table 103, p. 174.

State Tax Collections in 1974, U.S. Department of Commerce GF 74, No. 1. Table 6, p. 10.

Governmental Finances in 1972-1973, U.S. Department of Commerce, GF 73, No. 5. Table 17, pp. 31-33.

FHA Homes in 1972, Data for States and Selected Areas, Tables 65 and 325.

*Average effective property tax rate on existing single-family homes with FHA-insured mortgages.

TABLE 2-5

INDIVIDUAL INCOME TAX: 1973

	As a Percent of Personal Income		As a Percent of Federal Tax Liability	
	Percent	National Rank	Percent	National Rank
U.S. Average	1.5	-	13.5	-
Massachusetts	2.8	6	25.4	9
Other New England States				
Connecticut	.3	41	3.1	28
Maine	.8	37	9.1	38
New Hampshire	.2	42	1.9	42
Rhode Island	1.4	22	16.2	18
Vermont	2.6	8	27.6	5
Industrial States				
California	1.7	19	18.6	15
Illinois	1.4	23	13.1	27
Indiana	1.1	31	11.7	31
Michigan	1.8	15	15.5	19
New Jersey	.1	44	.5	44
New York	3.1	3	25.6	8
Ohio	.7	39	2.2	41
Pennsylvania	1.7	17	13.4	24
Wisconsin	3.3	1	31.6	1
Southern States				
Florida	-		-	
Georgia	1.4	25	13.1	26
North Carolina	1.9	12	19.3	14
South Carolina	1.7	16	15.0	21
Texas	-		-	

Source: State Tax Collections in 1973, Table 3, p. 7, Table 6, p. 10, Preliminary Statistics of Income 1972, Individual Income Tax Returns, Table 6, p. 25.

TABLE 2-6

GENERAL SALES TAXES IN 1973

	Rate	Revenue as a % of Personal Income
U.S. Average	3.5[1]	2.1
Massachusetts	3	.8
Other New England States		
Connecticut	6.5	2.7
Maine	5	3.2
New Hampshire	-	-
Rhode Island	5	2.2
Vermont	3	1.5
Industrial States		
California	3.75	2.1
Illinois	4	2.1
Indiana	2	2.1
Michigan	4	2.5
New Jersey	5	1.8
New York	4	1.8
Ohio	4	1.7
Pennsylvania	6	2.1
Wisconsin	4	2.2
Southern States		
Florida	4	3.3
Georgia	3	2.6
North Carolina	3	1.9
South Carolina	4	3.1
Texas	4	2.0

Source: State Tax Collections in 1973, U.S. Department of
Commerce, Bureau of the Census, GF 73, No. 1,
Table 4, p. 8, and Table 6, p. 10.

[1]The median rate of the 45 states authorizing general sales taxes.

use of income and property tax and thereby modify the severity of the
individual tax burden.

Business Taxes

Massachusetts relies more heavily on business taxes than almost any
other state. For Massachusetts, 23.8 percent of revenue was derived from business
taxes compared to 19.0 percent for the nation.

In 1973, total state and local taxes including contributions for
unemployment insurance amounted to 5.7 percent of total income originating in the
business sector compared to a national figure of 4.1 percent. (See Table 2-7.)
The business tax burden in the southern states is about two-thirds of the
Massachusetts level. The high level of Massachusetts business taxes is
due partially to the large corporation income and property tax levies, but
this state's unemployment compensation also adds significantly to the
business tax burden.

A recent study has compared Massachusetts taxes for hypothetical firms
in 10 manufacturing industries with the tax burden in several other indus-
trialized states. The results of this study revealed that Massachusetts
taxes are moderately high with Massachusetts ranking mostly 5th or
6th out of the 11 state sample.[1]

This moderately high manufacturing tax burden contrasts sharply with
the excessive levies on both electric utilities and insurance. Total state
and local taxes per $1,000 of net plant investment are presented in Table
2-8. Massachusetts taxes amount to $55.78 per $1,000 compared to a national
figure of $35.25. The Massachusetts tax burden exceeds the national average,

[1]Pennsylvania Economy League, Inc., Taxes Paid by Industry: A Compa-
rative Study of State-Local Tax Costs (March, 1972).

TABLE 2-7

A COMPARISON OF THE LEVELS OF BUSINESS TAXES IN SELECTED STATES, 1973

Collections as a Percent of Income Originating in the Business Sector

	Corporation Net Income Taxes	Property[1] Taxes	Other Business[2] Taxes	Unemployment Compensation	Total "Tax Climate Index"
U.S. Average	.9	1.9	.8	.8	4.4
Massachusetts	1.3	2.9	.5	1.3	6.0
Other New England States					
Connecticut	1.2	2.1	1.1	1.0	5.5
Maine	.5	3.2	1.0	1.3	6.0
New Hampshire	.9	2.4	.6	.6	4.5
Rhode Island	1.1	2.0	1.1	1.3	5.5
Vermont	.7	3.4	.9	.9	5.9
Industrial States					
California	1.4	2.6	.5	1.2	5.7
Illinois	.6	1.7	.7	.8	3.8
Indiana	.1	1.6	.3	.5	2.5
Michigan	1.1	1.7	.7	1.0	4.5
New Jersey	.7	2.4	.8	1.3	5.2
New York	1.3	3.3	.7	1.0	6.3
Ohio	.5	1.2	1.0	.6	3.3
Pennsylvania	1.3	1.3	1.4	.8	4.8
Wisconsin	1.1	2.6	.5	.7	4.9
Southern States					
Florida	.7	1.0	.6	.3	2.6
Georgia	.9	1.1	.4	.5	2.9
North Carolina	1.1	1.1	1.4	.5	4.1
South Carolina	1.0	1.5	.7	.7	3.9
Texas	–	1.4	1.0	.3	2.7

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[1] Only the business portion of the property tax is included. The apportioning of property was based upon the data in Census of Governments, U.S. Bureau of the Census, 1967.

[2] Other business taxes include sales and gross receipts tax revenue on insurance and public utilities as well as certain license tax revenues.

Sources: Survey of Current Business, No. 8, 1974.
State Tax Collections in 1973 Department of Commerce, Table 3, p. 7; Table 4, p. 8; and Table 5, p. 9.
Governmental Finances in 1972-1973, Bureau of the Census, Table 17, pp. 31-33.

TABLE 2-8

ELECTRIC UTILITY TAXES OTHER THAN FEDERAL INCOME TAXES
PER $1,000 OF NET PLANT INVESTMENT - 1970

	Taxes	Sample Rank
U.S. Average	35.25	-
Massachusetts	55.78	2

Other New England States

Connecticut	38.89	5
Maine	29.56	14
New Hampshire	35.13	10
Rhode Island	31.69	3
Vermont	38.71	6

Industrial States

California	33.76	11
Illinois	46.76	4
Indiana	28.42	15
Michigan	31.16	13
New Jersey	38.61	7
New York	58.21	1
Ohio	37.94	8
Pennsylvania	24.09	19
Wisconsin	36.07	9

Southern States

Florida	26.05	17
Georgia	21.80	20
North Carolina	32.58	12
South Carolina	26.93	16
Texas	25.84	18

Source: Statistics of Privately Owned Electric Utilities
in the United States: 1970. Federal Power Commission.

the other New England states, and most of the industrial states by more than 50 percent.

Massachusetts' tax burden on domestic insurance companies is also exceptionally high. In fact, since 1961 Massachusetts has risen from 5th to 1st place among the major insurance states in terms of the burden on domestic insurance companies.[1] As shown in Table 2-9, Massachusetts' burden is 50 percent higher than that in Connecticut, the state with the second highest taxes.

Although unemployment taxes are not used for general revenues, they do contribute to Massachusetts' overall business tax burden and are often cited by business as a major source of excess tax burden in Massachusetts compared to other states. In Massachusetts, the tax is levied on the employer based on the first $4,200 of taxable wages paid to each employee during the calendar year. In 1974, the standard rate was 2.7 percent; however the rate could be more or less depending upon the employer's rating in stabilizing his employment or upon the amount in the state fund. The maximum rate is 5.1 percent and the minimum rate is 0.5 percent. While it is true that the unemploymen tax in Massachusetts is one of the highest in the nation (Table 2-10), it is important to understand why this is the case.

Often-cited differences in unemployment compensation costs between Massachusetts and Texas present a good example, illustrated in Table 2-11. At first glance there appears to be a large divergence in contributions as a share of total wages: 1.7 percent in Massachusetts vs. .3 percent in Texas. The major portion of this higher cost can be explained by a higher unemployment rate and more importantly by a very liberal eligibility policy in Massachusetts rather

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[1]Massachusetts Taxpayers Foundation, Inc., Massachusetts Tax Primer (1973 edition) p. 27.

[2]Commerce Clearing House, Inc., 1974 Guidebook to Massachusetts Taxes, p. 172.

TABLE 2-9

HYPOTHETICAL TAXES ON SEVEN MASSACHUSETTS INSURANCE COMPANIES
IF CHARTERED IN SELECTED STATES

	Alternative Tax Liabilities	Index (Mass. = 100)	Importance of Insurance in State	
			Insurance Taxes as Percent of Total Taxes	Insurance Employment as a Percent of Total Employment
Massachusetts	17,119	100.00	3.08	1.2
Connecticut	11,467	66.98	7.60	3.8
New York	5,183	30.28	2.30	1.8
New Jersey	4,912	28.69	2.94	1.9
Wisconsin	3,864	22.57	1.49	N.A.
Rhode Island	3,520	20.56	2.81	N.A.
Indiana	3,387	19.79	2.82	N.A.
North Carolina	3,350	19.57	2.46	N.A.
Ohio	2,663	15.56	3.30	0.2
Texas	1,467	8.57	2.84	2.0
Illinois	811	4.74	1.58	1.7
Michigan	350	2.04	2.86	1.0
California	0	0.00	2.67	1.8
Florida	0	0.00	2.98	1.4

Source: Study and Proposals for the Taxation of Life Insurance Companies in Massachusetts, Domestic Based Life Insurance Companies, 1972.

TABLE 2-11

RATE OF MASSACHUSETTS AND TEXAS EMPLOYER CONTRIBUTION FOR UNEMPLOYMENT INSURANCE, 1973

1973 Contribution Rates: Massachusetts   3.3%
                                Texas   0.5

Massachusetts Rate[a] if

1. Average benefits received were
    reduced to Texas benefits   2.6

2. Duration of benefits were reduced to
    Texas level   2.5

3. Unemployment rate was reduced to Texas
    level for covered employees   0.7

4. If all three adjustments were made   0.4

Source: Calculated on the basis of unemployment insurance data in U.S. Bureau
         of the Census, Statistical Abstract of the United States: 1974.
         (93rd Edition) Washington, D. C., 1973, Table 465, pp. 292-3.

a. Adjustments were made on the basis of the following formula:

	Average	Average	Beneficiaries
Total benefits = α [(rate)payrolls] =	Benefit	*Duration of	*first
	Weekly	Benefits	Payments

    where α = ratio of benefits to contributions.

than by a higher benefit level for the unemployed. Assuming Massachusetts'
unemployment and eligibility standards were the same as Texas, the
Massachusetts contribution rate would be lowered to 0.7 percent. Further
reduction in the level and duration of benefits to Texas standards would
reduce our rate to 0.4 percent.

In view of this example, the only way to substantially reduce the
unemployment tax in Massachusetts is through improvement in the unemployment
situation and a dramatic revision of the eligibility requirements for those
receiving benefits.

Summary

Massachusetts ranked 6th in the nation in overall tax burden in 1973.
Consequently, there is little room for raising additional revenue without
seriously worsening Massachusetts' competitive position vis-a-vis other
states. Massachusetts' fiscal structure, however, should be comprehensively
reformed in order to reduce this state's extraordinary dependence on the
local property tax. The sales tax has been underutilized in Massachusetts
and therefore represents the most promising source of relief from the local
property tax burden.

One caveat is in order with respect to interstate comparisons of
tax burden. Studies have shown that the intrastate variation in taxes
due to the local property tax may be far more significant than differences
between states.[1] This is particularly true in Massachusetts where
aggregate state data underestimate the severity of the tax burden in
Massachusetts central cities where the property taxes are the highest.
Nevertheless, even in the overall comparisons, Massachusetts comes out
with one of the heaviest tax burdens.

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[1]James W. Wightman, The Impact of State and Local Fiscal Policies on
Redevelopment Areas in the Northeast, Federal Reserve Bank of Boston,
Research Report No. 40, March 1968.

Chapter 3

THE NEED FOR EXPENDITURE CONTROL

Richard F. Syron

Tax reform addresses only one side of the public sector's income
statement, the revenue side. Without more effective control on the expenditure
side, all the improvements tax reform can provide will be lost in a few years.
From 1963 to 1973 total state and local expenditures in Massachusetts increased
almost threefold. During the same period Gross State Product only just doubled.
Unless this imbalance is rectified, we will be unable to maintain our present
tax base, much less expand it. The result could be fiscal disaster with state
and local governments unable to provide services or deal with pressing social
problems.

Growth of State and Local Expenditures and Taxes

Chart 3-1 illustrates the growth from 1962 to 1973 of state and local
expenditures as well as Gross State Product, a measure of the total income
generated in Massachusetts. The growth of state and local expenditures closely
followed that of Gross State Product from 1962 to 1968. Since 1968 state and
local expenditures have grown much faster than Gross State Product, partially
as a result of the substantial increase in state expenditures. Table 3-1 indicates
that state expenditures increased from 3.4 percent of Gross State Product in
1968 to 7.7 percent in 1973.

Expenditure data alone can be misleading as changes in spending patterns
may be caused by a variety of factors including shifts in responsibility for
functions and changes in Federal reimbursements. One reason for the sharp
increase in the Commonwealth's expenditures in 1968 is that the state assumed

Chart 3—1

DIRECT GENERAL EXPENDITURES FOR ALL FUNCTIONS (1962=100)

Fiscal Years
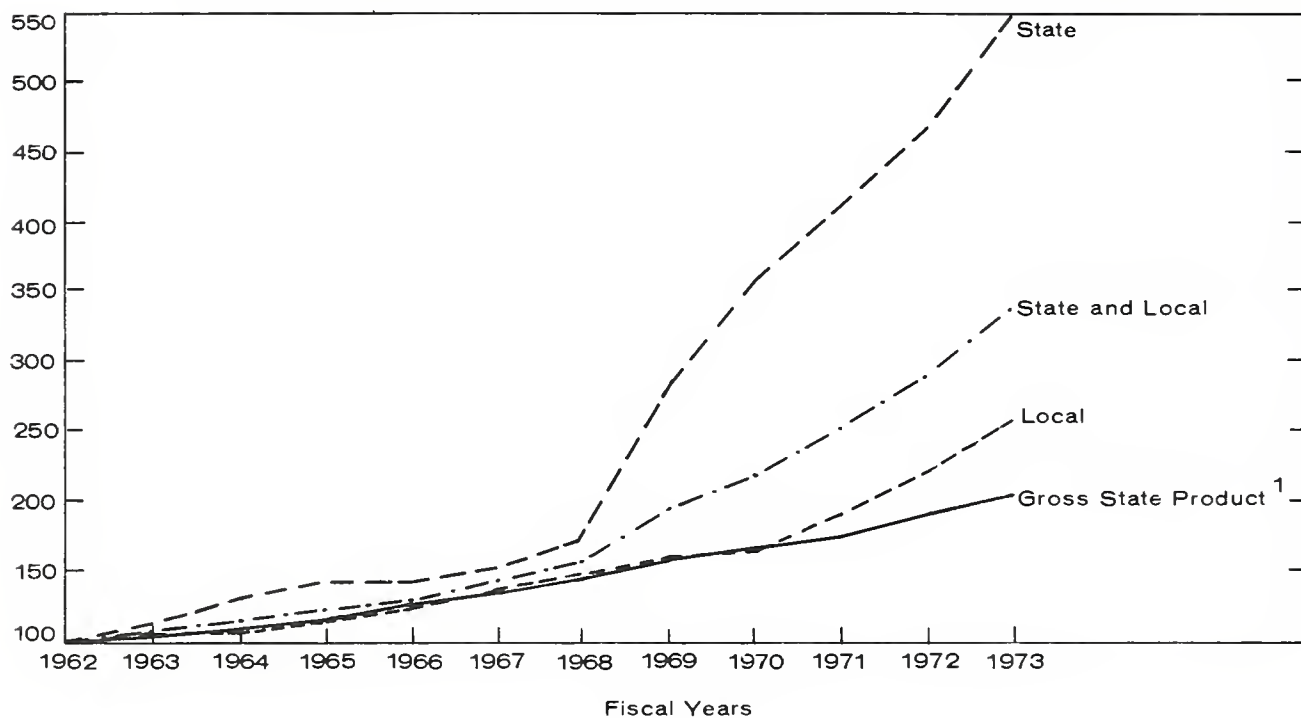
Chart 3—2

DIRECT GENERAL EXPENDITURES EXCLUDING WELFARE PAYMENTS (1962=100)

Fiscal Years
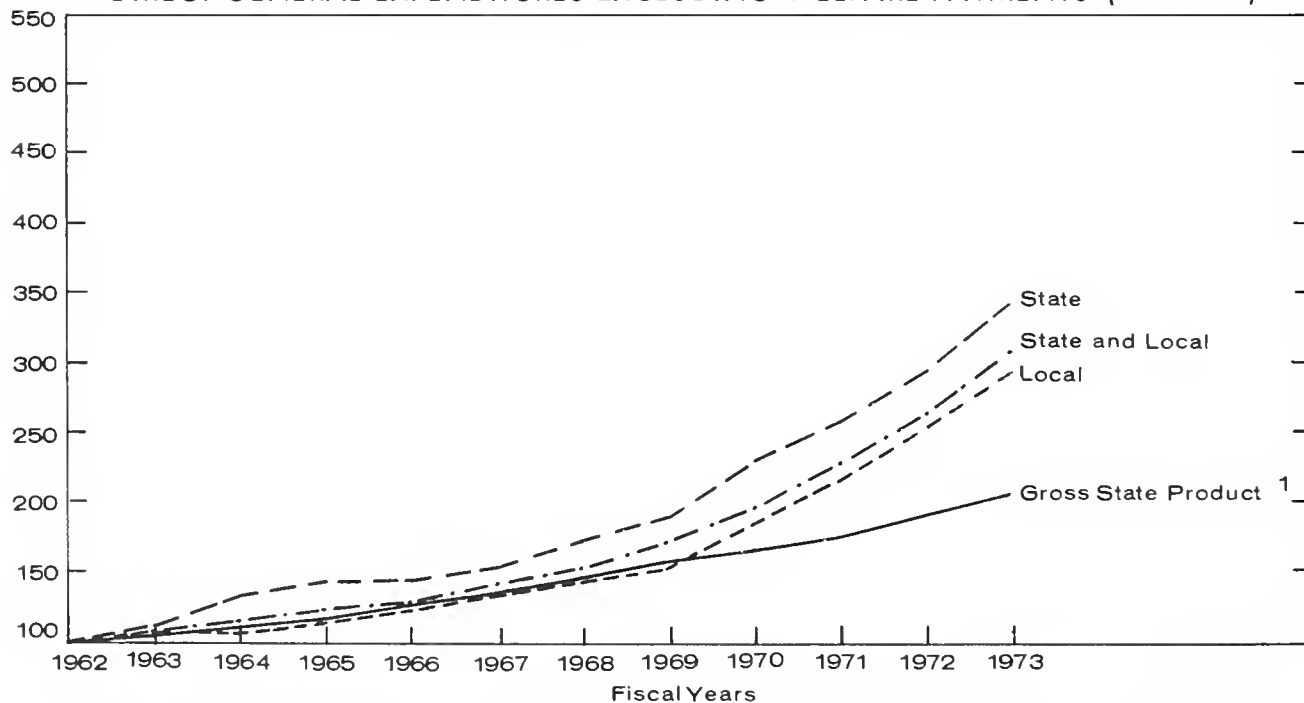
Source: U.S. Bureau of the Census, Government Finances, Series GF62-No.5,
U.S. Government Printing Office, Washington, D.C. Tables 16, 17 & 18.
Figures indexed by the Federal Reserve Bank of Boston.

[1] Gross State Product is calculated on a calendar year basis by the Federal Reserve Bank of Boston. (1962=100)

Table 3-1

Direct General Expenditures
for All Functions

Fiscal Year	State & Local Expenditures as a Percent of G.S.P.	State Expenditures as a Percent of G.S.P.	Local Expenditures as a Percent of G.S.P.	State & Local Expenditures ($M)	State Expenditures Including Welfare Payments ($M)	State Expenditures Excluding Welfare Payments ($M)	Local Expenditures ($M)	Gross State Product ($M)
1962	10.38%	2.91%	7.47%	$1,782.7	$ 499.2	$ 482.0	$1,283.5	$17,174
1963	10.68	3.12	7.56	1,902.1	555.4	537.7	1,346.7	17,812
1964	10.74	3.47	7.27	2,033.4	656.3	636.1	1,377.1	18,931
1965	10.78	3.45	7.33	2,188.0	700.4	678.5	1,487.6	20,294
1966	10.52	3.19	7.33	2,314.6	702.7	678.9	1,611.9	22,002
1967	10.79	3.23	7.56	2,527.2	757.3	727.8	1,769.9	23,413
1968	10.98	3.41	7.56	2,771.9	862.2	827.7	1,909.7	25,248
1969	12.74	5.22	7.52	3,479.7	1,425.0	911.5	2,054.7	27,319
1970	13.63	6.23	7.39	3,914.3	1,790.6	1,112.7	2,123.8	28,724
1971	14.64	6.80	8.04	4,506.9	2,064.0	1,247.7	2,442.9	30,373
1972	15.78	7.15	8.63	5,165.6	2,341.5	1,430.9	2,824.2	32,736
1973	16.09	7.28	8.81	5,741.7	2,597.2	1,588.7	3,144.6	35,686

Source: U.S. Bureau of the Census, Governmental Finances, Series GF62-No. 5 to GF73-No. 5, U.S. Government Printing Office, Washington, D.C. Tables 16, 17, and 18.

[1]Gross State Product, calculated on a calendar year basis by the Federal Reserve Bank of Boston.

responsibility for welfare, until then a local responsibility. To a great

extent, the increased cost of welfare would have been borne by the municipalities

if the state had not assumed it but this cost is better financed by broad based

revenue sources than by local property taxes.[1] However, as Chart 3-2 indicates,

welfare alone does not account for all of the increase in state and local

spending. State expenditures for other functions more than doubled in the

last five years, from $828 million in 1968 to $1675 million in 1973.[2] Further-

more, non-welfare expenditures of local governments increased in 1968 as

localities took advantage of the local tax resources freed by state takeover of

the welfare function.

Fortunately, some of the increase in expenditures by Massachusetts governments

has been paid for by Federal revenues. For example, a significant share of social

service costs is federally reimbursed, including about 50 percent of the cost of aid

to families with dependent children and to the aged, blind, and disabled. Federal

revenue sharing to cities and towns began in 1970, about the time total local

expenditures began rising faster than Gross State Product. As a result of these

Federal monies, it has been possible to increase expenditures faster than taxes.

Table 3-2 indicates that state and local taxes as a share of Gross State Product

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[1]Chart 3-1 overstates the one-time jump in state costs as a result of the
takeover of welfare. Until 1968 the state reimbursed the cities and towns for
approximately one-fourth the cost of welfare. However, this cost is shown in
the chart only as a local expenditure as it is a transfer between state and
local governments and not a direct state expenditure. The approximately 50 percent
share of welfare reimbursed by the Federal Government is reflected as a direct
general expenditure of local governments up to 1968 and the state since then.

[2]Direct General Expenditures do not include transfers between state and
local governments, to avoid double counting. Source: U.S. Bureau of the
Census, Governmental Finances in 1967-68, Series GF68-No. 5, U.S. Government
Printing Office, Washington, D.C. The 1973 figure is estimated on basis of
growth in state expenditures, 1972 to 1973, published in Massachusetts Financial
Report for the Fiscal Year Ended June 30, 1973.

Table 3-2

Total Tax Revenue

Fiscal Year	State & Local Tax Revenue as a Percent of G.S.P.	State Tax Revenue as a Percent of G.S.P.	Local Tax Revenue as a Percent of G.S.P.	State & Local Tax Revenue ($M)	State Tax Revenue ($M)	Local Tax Revenue ($M)	Gross State Product[1] ($M)
1962	8.18%	3.20%	4.97%	$1,404.0	$ 549.7	$ 854.2	$17,174
1963	8.02	3.26	4.76	1,428.4	580.4	847.9	17,812
1964	7.98	3.34	4.65	1,511.6	632.0	879.6	18,931
1965	7.96	3.33	4.63	1,615.6	675.0	940.6	20,294
1966	8.20	3.51	4.69	1,804.0	773.2	1,030.9	22,002
1967	8.53	4.07	4.46	1,997.9	953.7	1,044.3	23,413
1968	8.53	4.10	4.43	2,154.3	1,034.9	1,119.5	25,248
1969	9.06	4.52	4.54	2,474.3	1,233.5	1,240.8	27,319
1970	9.85	4.85	4.99	2,828.3	1,393.7	1,434.6	28,724
1971	10.40	4.93	5.47	3,158.5	1,498.6	1,659.9	30,373
1972	11.29	5.52	5.77	3,695.5	1,805.7	1,889.8	32,736
1973	11.64	5.76	5.88	4,153.3	2,054.1	2,099.2	35,686

Source: U.S. Bureau of the Census, Govermental Finances, Series GF62-No. 5 to GF73-No.5, U.S. Government Printing Office, Washington, D.C. Tables 16, 17, and 18.

[1]Gross State Product, calculated on a calendar year basis by the Federal Reserve Bank of Boston.

increased from 8.2 percent in 1962 to 11.8 percent in 1973 while the comparable figures for expenditures are 10.4 percent and 17.0 percent.

While it is certainly true that we cannot allow taxes and expenditures to grow faster than output indefinitely, attempts to limit the growth rate of the public sector to the growth rate of Gross State Product are not likely to be successful. The public sector share is likely to vary over time depending on how well the state's economy does. Beyond that, expenditure growth is already built into many of our social programs. What is needed at both state and local levels is improvement in the way we plan public spending and better control of actual expenditures. The sheer size of the state budget relative to that of any individual city or town makes it the logical place to start this improvement. Furthermore, state taxes and expenditures have been growing at a much faster rate than local ones. While a comprehensive plan for improving control of state spending is outside the scope of this study, it is possible to make some constructive suggestions.

Improvements in the Budget Process

Enactment of the state budget is probably the single most important process the legislative and the executive branches of state government go through each year, yet it receives relatively little attention. One reason for this lack of notice is the way the budget is now presented. It is a labyrinth of numbers which few people in state government, much less the public, can understand.

The present "line item" state budget, House I, simply lists the amounts to be spent on programs by object of expenditure: salaries, rents, etc. It does not indicate what the taxpayer gets for those dollars. The budget fails to provide the kind of information needed to make decisions as to which appropriations should be increased and which should be cut back. In the fiscal 1975

budget, equal amounts of space were given to appropriations of $12,000 for damages caused by wild deer and moose, $70 million for highways, and $316 million for AFDC. While supporting information is available to the legislative Ways and Means Committee and to the executive, the line item budget is the only document generally available to the average legislator or to the public. Even this information is often unavailable until just before the legislature votes on how to spend approximately $3 billion. The Bartley-Early-Massachusetts Taxpayers Association reform law opening up the budget process to the public, and the Budget in English published by the Division of Fiscal Affairs, are both significant steps toward improving the budget process, but more needs to be done.[1]

Program Budgeting

The most glaring flaw in our present budget system is that it focuses solely on inputs or costs. Program budgeting attempts to rectify this flaw by identifying quantitative output measures to be used along with costs to determine effectiveness. Program budgeting is not new; many states and some large cities have been using it for years. Program budgeting grew out of the systems approach to considering how different facets of a problem interact; computers have made it possible by facilitating statistical analysis of large amounts of data.

Program budgeting has two advantages: first, it provides the legislature and the public with real information on what agencies do and how well they do it. Second, by requiring a program director to justify his budget requests in

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[1]Chapter 844, Massachusetts Acts of 1974 and The Budget in English, Division of Fiscal Affairs, Department of Administration and Finance, January, 1974.

terms of both output and cost, program budgeting forces him to consider his
agency's objectives and how well it is performing them. Since the present system
has no measures of output or effectiveness, programs are invariably evaluated on
an incremental basis. If a program was appropriated $10 million last year, there
is unlikely to be any evaluation of the need for giving it at least that much
this year; only requests for additional funds come under scrutiny. Since program
budgeting requires information on program output, programs can be evaluated on
a zero base format. The need for having a program at all and the desirability
of cutting back funds, not just maintaining present levels, can be considered.
This is important since some agencies continue to exist long after the need for
them has passed.

Program budgeting can take many different formats. It can be as simple as
identifying the outputs of major programs at a fairly broad level and incorporating
that information into the traditional budget. At the other end of the spectrum,
it can require the collection of vast amounts of data at a very detailed level
and a complete change in the budget process. The form that program budgeting
takes is less important than the commitment to do it. What is important is
having at least some information on what government programs do and how effectively
they do it.

Integrating the Capital Outlay Budget with the General Budget

Under our current procedure there is not one but several budgets each
year. The general budget is passed before the beginning of the fiscal year.
One or more deficiency budgets may be required later in the year if agencies
spend beyond their appropriations. A capital budget may also be passed for
new buildings and facilities. To as great an extent as possible there should
be just one budget. Agencies should be made to live within their original
appropriations except in extraordinary circumstances. Similarly the legislature

should make realistic appropriations. It is folly to appropriate less money for social programs than they are sure to cost, given benefit levels. This approach makes deficiency budgets a certainty. If the legislature and the executive had to live within one budget, they would be forced to face up to the hard trade-offs that have to be made.

Outlays for building new facilities or improving old ones should also be evaluated at the same time that the budget is set for the programs they serve. In our present system capital outlays are evaluated independently of the need for personnel to staff them and of funds to maintain them. It is not unusual to have funds appropriated for a facility in the Capital Outlay Budget when no money is provided for running it in the general budget. Every capital outlay proposal should include an analysis of the items' full cost effect on future budgets.

Improved Monitoring of Revenues and Expenditures

Forecasting tax revenues up to 18 months in advance as the budget process requires is necessarily a precarious exercise. However, considering its importance, relatively little in the way of resources has been directed toward making revenue forecasts. Revenues have often been underforecast with the understanding that whatever overages there are would be eaten up by future deficiency budgets. A study has now been undertaken of the relationships between the national economy and the state's economy and its tax revenues.[1] The objective is to develop better revenue forecasts. Once such forecasts are

[1] A Report Submitted to The Executive Office of Administration and Finance, A General Specification of An Econometric Model of Massachusetts and Its Fiscal Structure, by Ann F. Friedlaender, November 13, 1974.

developed, the legislature and the executive should be forced to agree on an estimate of available funds and to pass a budget within that constraint. Present state law requires the executive to file a balanced budget. It does not require the legislature to pass one. Revenue and expenditure patterns should be monitored throughout the year and compared with projections. This information should also be easily available to the public. These steps would result in improved fiscal accountability and lessen the temptation to balance the budget at the end of the fiscal year by gimmicks such as delaying vendor payments or holding up tax refund checks.

Increased Legislative Staff

Any proposal to increase legislative staff is bound to be met with the objection that funds for this purpose will only be channeled into more patronage. While that possibility is always there, the logical answer to such objections might be to give the legislature no staff at all. Under our Constitution the Governor proposes the budget; the legislature must evaluate it. They cannot be expected to perform this role unless they have the tools to do it. Considering the importance of their work, the Ways and Means Committees of the legislature are understaffed. The amount of money required to correct this is minimal in comparison with the state budget. Any additional legislative staff should have the capacity to analyze programs and examine their effectiveness, and not just to keep track of costs.

Improved Management Systems and Increased Accountability

Our present approach to managing state programs has been to diffuse responsibilit to the point where no one person or group is accountable. The theory behind this diffusion is that in many cases it builds safeguards into the system.

However, in many cases these safeguards are counterproductive. Everyone is to
blame so no one is to blame. If programs do not do what they are supposed to
or overrun their budget, the legislature blames the Governor. The executive
in turn can say the legislature has not given its agencies the freedom they
need to manage programs effectively. To some degree this may be true. The
personnel system is a case in point. All state positions must now be approved
by the legislature. The legislature may appropriate funds for a program, yet
refuse to grant the position required to carry it out. On the other hand, the
executive may accept the positions, yet refuse to fill them. As a result no
one is accountable.

The role of the legislature should be to decide in collaboration with
the Governor what state funds are to be spent on. Once that decision has
been made, agency heads should be given the greatest amount of discretion possible
in managing their programs and they should be held responsible for success or
failure.

State government has become a very complex business. The Commonwealth is
far and away the state's largest employer. The state budget dwarfs the spending
of all but the largest companies. Yet for all of this, we still are managing
the state in much the same way we were 50 years ago. However, it is possible
to make improvements. The reorganization package passed last year allows
greater management flexibility than before. In some areas including Civil
Service and Personnel the tools required for reform have been on the books for
some time. Private industry and state government should enter into a partnership
to develop more effective management systems for public programs. This can be
done in a variety of ways, including setting up blue ribbon commissions to study

major expenditure areas such as welfare and education, and meaningful loaned executive programs. This approach can work, but it will work only if the public and private sectors are willing to take the possibility of improvement seriously and dedicate themselves to achieving it.

Conclusion

The primary purpose of this report is to develop alternative approaches to tax reform in Massachusetts. However, improving the management of public programs and developing better expenditure control may well be more important. It is also likely to be a more difficult task. These have been preliminary suggestions for steps that could be taken to improve state management. The size of state government and its comparatively high growth rate make it the logical place to start.

Part II LOCAL REVENUES AND STATE-LOCAL FISCAL RELATIONSHIPS

Chapter 4

THE LOCAL PROPERTY TAX

Robert W. Eisenmenger and Joan T. Poskanzer

In fiscal year 1973 state and local governments in Massachusetts garnered
50 percent of their tax revenues from the property tax, down from 58 percent
in 1953. The comparable average for the other 49 states was about 37 percent
in 1973 and 44 percent in 1953. Many states have remarkably low property
tax ratios: Alabama, 13; Delaware, 18; Hawaii, 19; and Louisiana, 18, for
example. Connecticut, Maine, New Jersey, and New Hampshire ratios approach
those of Massachusetts; New York is close to the national average.[1]

The heavy burden of the local property tax in Massachusetts has very
unfortunate economic and social consequences, as demonstrated in the following
sections: (1) our local property tax is regressive and inequitable; (2) it is
a punitive tax which discourages investment in housing, home improvements, and
new industry; (3) it is a politically and socially divisive tax which discourages
sensible land-use planning, and (4) it encourages piecemeal "solutions" that
can have disastrous long-run effects.

Regresivity and Inequity

Economists are divided as to whether or not the property tax is "regressive:
or "progressive" in the nation as a whole. In the past, most economists assumed
that property taxes absorbed a larger fraction of the income of low-income

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[1]U.S. Bureau of the Census, Governmental Finances in 1972-73, October 1974,
Table 17; Summary of Governmental Finances in 1953, October 1954, Table 1, and
1957 Census of Governments, Vol. IV, No. 3, Table 4. These figures include
general taxes on real and personal property, and taxes on selected types of
property such as motor vehicles -- in Massachusetts, the motor vehicle excise tax.

families than of high-income families. Recently, some of the most competent

public finance economists in the country have questioned this assumption.[1]

Whatever the merit of this debate regarding the property tax in the nation

as a whole, the Massachusetts evidence is overwhelming. In this state the

local property tax is clearly regressive; the percentage of family income

going to property taxes is about three times as great for a family with

income of $9,000 as it is for a family with income of $45,000.[2] This is true

whether the families live in rural suburbs, wealthy towns, central cities,

rapidly growing towns, or older towns. Because of wide variations in local

property tax bases per capita, high tax rates generally are not matched by

high levels of government services, and in fact an inverse relationship often

exists.

The local property tax was a sensible tax in colonial days when inter-

community differentials in the per capita property tax base were minimal.

At that time the amount of property a person owned was a relatively good

indication of the taxes he could afford to pay as well as the level of local

government services he required. Now, however, communities have widely

varying per capita tax bases and ability to pay is better measured in other

ways.

Cities which are predominantly inhabited by low-income families living

in modest apartments and homes must impose relatively high property tax rates

to support a minimal level of government services. On the other hand, the

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[1]Henry Aaron, "The Property Tax: Progressive or Regressive? A New View of Property Tax Incidence," Richard A. Musgrave, "Is a Property Tax on Housing Regressive?" and "Discussion," American Economic Review, Vol. 64, No. 2, May 1974, pp. 212-235. See also Dick Netzer, "The Incidence of the Property Tax Revisited," National Tax Journal, Vol. XXVI, No. 4, December 1973, pp. 515-535.

[2]See Chapter 14, Summary Tables 14-5 through 14-9.

suburbs inhabited by high-income individuals and resort and retirement communities which are not burdened by heavy school expenditures have very low equalized tax rates. Property taxes as a percentage of family income are higher in Boston than in the other large municipalities in Massachusetts. Moreover, the equalized property tax rate is much higher in Boston than in such high-income Massachusetts localities as Newton and Brookline, which provide a much higher level of governmental services. Table 4-1 indicates the wide variation in tax rates among Massachusetts cities and towns, even on an "equalized" or full value basis. Appendix Table 4-1, column 1, shows the estimated full value rate for each city and town for fiscal year 1975.

The Burden on Housing and Plant Investment

When a decision is made to tax goods and services, most public finance experts recommend that the tax be imposed at a uniform rate without discrimination. There are obvious exceptions. Generally, medical services, educational services, and prescription drugs are exempt because most people agree that these types of expenditures should be encouraged. On the other hand, high excise taxes are imposed on cigarettes and liquor because society wishes to discourage their consumption. Nevertheless, as a general rule, taxes are expected to be imposed at a uniform rate. Despite this theory, throughout the United States housing is generally taxed at a much higher rate than other items in the family budget.

For example, as shown in Table 4-2, moderate income families in urban United States pay property taxes which on average amount to about 28 percent of their shelter costs. As bad as this situation may be in the Nation as a whole, it is almost disastrous in Massachusetts. Property taxes for moderate income families in the Boston metropolitan area average 48 percent of the cost

Table 4-1

"Equalized" or Full Value Tax Rates*
Massachusetts Cities and Towns
Fiscal Year 1975

	Cities	Towns
Total	(39)	(312)
Tax rate per $1000 of full market value		
Over $75	2	0
$60-74	3	0
50-59	5	3
40-49	18	25
30-39	10	135
20-29	1	92
10-19	0	51
Under 10	0	6

*Based on announced local tax rates for fiscal year 1975 and assessment ratios for 1974.

Source: Data from State Department of Corporations and Taxation.

Table 4-2

1969 Property Tax as a Percentage of Shelter Costs *
in the BLS Sample of 39 Metropolitan Areas for
the Intermediate Level Family Budget

Urban U.S. Average	28.4%
Boston	47.5
Milwaukee	44.0
New York-Northeastern New Jersey	44.0
Green Bay	40.1
Buffalo	38.2
Cedar Rapids	33.5
Cleveland	33.1
Wichita	32.8
Detroit	32.6
San Francisco-Oakland	32.6
Philadelphia	31.9
Indianapolis	31.1
Hartford	30.7
Los Angeles-Long Beach	30.4
Portland, Maine	30.2
Champaign-Urbana	27.7
Pittsburgh	27.0
San Diego	27.0
Bakersfield, California	26.5
Kansas City, Missouri-Kansas	25.6
Denver	24.8
St. Louis	24.7
Baltimore	24.2
Cincinnati	23.7
Chicago-Northwestern Indiana	23.5
Dayton	22.8
Houston	22.8
Austin	21.4
Dallas	21.0
Seattle-Everett	21.0
Washington, D.C.	20.0
Minneapolis-St. Paul	19.8
Nashville	19.8
Lancaster	17.1
Orlando	16.8
Honolulu	15.0
Durham, North Carolina	12.4
Atlanta	9.8
Baton Rouge	6.8

* Shelter costs include principal and interest mortgage payments, home-
owner insurance premiums, repairs and maintenance, heating fuel,
electricity and gas, water, sewerage, waste disposal, and depreciation
for refrigerator, range, and space heater where required.

rce: U.S. Bureau of Labor Statistics, Annual Homeowner Shelter Costs in an
Intermediate Level Budget, Spring 1969 (Unpublished).

of shelter. This percentage is the highest for any metropolitan area in the country and contrasts with figures as low as 7 percent and 10 percent in Baton Rouge and Atlanta.

Such high property taxes inevitably discourage investment in homes and home improvement and encourage spending on less heavily taxed items such as automobiles, boats, travel, and entertainment. More importantly, in some low-income communities high property taxes discourage investments in new apartment houses, office buildings, and manufacturing plants. Fall River, Worcester, and Boston are good examples of such communities. Property taxes per capita are higher in Boston than in any other of the 20 largest cities in the nation.[1] Office building property taxes per square foot and as a percentage of total income are higher in Boston than in all major cities except New York.[2] It was only after informal preconstruction tax "agreements" were arranged that any major building projects were able to move ahead in the city of Boston. Unfortunately, such arrangements clearly have the potential for actually encouraging political corruption or appearing to do so. Furthermore, should the recent Supreme Judicial Court decision in the case of the Town of Sudbury vs. the State Tax Commission result in enforced assessment of all property in the Commonwealth at full market value, new building in cities with high tax rates will no longer be feasible. One of the major aims of tax reform should be to reduce the discriminatory high tax rate which is now imposed on real estate.

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[1]U.S. Bureau of the Census, City Government Finances in 1971-72, December 1973, Table 6.

[2]Advisory Commission on Intergovernmental Relations, Federal-State-Local Finances: Significant Features of Fiscal Federalism, (M-79) February 1974, Table 105.

The wide variations in effective property tax rates among Massachusetts cities and towns are another unfavorable influence upon our economic growth. For example, tax differentials have long favored commercial and industrial growth in the newer suburbs at the expense of central cities and older industrial towns, at the same time that our economic and social policies presumably have been directed toward redevelopment of depressed areas.[1] The tax disadvantage of the central city and older town in attracting industry is great, even when tax concessions are not offered by competing communities.

Social Divisiveness

The high property tax in Massachusetts is socially divisive because it encourages snob zoning. Communities which are primarily inhabited by high-income people benefit by having lower tax rates because their inhabitants live in expensive homes which create a substantial tax base. Thus, the tax structure provides a built-in incentive for communities to exclude medium and low income people by zoning. If most taxes were collected on a statewide basis, the financial incentive for snob zoning would be largely eliminated.

The local property tax in Massachusetts is socially disruptive in another way. High property taxes in low-income cities encourage middle-income taxpayers to migrate to the suburbs in search of a better return on their tax dollar. This has the disastrous long-run social consequence of leaving the city with predominantly low-income residents who are too poor to get out.

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[1] James W. Wightman, The Impact of State and Local Fiscal Policy on Redevelopment Areas in the Northeast, Federal Reserve Bank of Boston, Research Report No. 40, March 1968.

An Incentive for Poor Planning

The General Court has established an extensive list of exemptions to the property tax, largely for property devoted to public uses and property devoted to charitable, benevolent, and other quasi-public purposes. About one-fourth of the total real and personal property valuation in Massachusetts is exempt from taxation. Its distribution among the cities and towns is very uneven both in area and in valuation, ranging in 1970 from less than 1 percent to 60 percent or more.[1] The appendix to this chapter gives the ratio of tax-exempt to taxable property for each city and town in 1972 excluding municipal property, which would yield no revenue to the municipality in any case. This table shows the same uneven distribution over the Commonwealth.

In his 1974 Policy Statement on Tax-Exempt Property and Institutional Growth, Boston's mayor showed that 58 percent of Boston's total assessed valuation was owned by tax-exempt institutions in 1973, and that this share has increased from under 40 percent in 1960.[2] Because of the burden of tax-exempt property, the mayor is attempting to do what he can to prevent any additional conversions of taxable property to tax-exempt status. The obvious difficulty with this "solution" to Boston's tax problem is that it discourages the downtown expansion of tax-exempt facilities. Most universities can best serve the public when they are located in the heart of a city where students and visitors have easy access to all parts of the metropolitan area as well as to bus, rail, and air lines. Similarly, hospitals, museums, and special

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[1]Massachusetts Taxpayers Foundation, Institutional Property Tax Exemptions in Massachusetts, December 1971, Table A-3.

[2]Kevin H. White, Mayor, City of Boston, "Policy Statement on Tax-Exempt Property and Institutional Growth," Office of the Mayor, City of Boston, February 28, 1974, /mimeo./ pp. 1-2.

institutions such as the Kennedy Library are best situated downtown, where
they can be reached easily by large numbers of people. Unfortunately, the
importance of the local property tax base to city finances forces any mayor
to oppose the conversion of taxable property to tax-exempt status even though
the expansion of tax-exempt institutions creates new jobs.

The Mayor of Boston last year proposed a bill (H.3993 of 1974) under which
every municipality would receive direct state reimbursement equal to 20 percent
of the valuation of non-municipal exempt property multiplied by the municipality's
tax rate. It has been estimated that Boston would receive about $40 million,
and that the total cost to the state would be $200 million.[1] As a part of his
1975 legislative program, the Mayor has again proposed such state reimbursement
to cities and towns (H.3405 of 1975). There are many difficulties with this
particular solution. First, the conversion of taxable property to tax-exempt
property would still reduce a community's tax base and city leaders could be
expected to oppose such a conversion. As a result, built-in political conflict
would continue between the tax-exempt institutions and the leadership of a
community. Second, many wealthy communities have a substantial amount of tax-
exempt property and would benefit by state reimbursement even though they have
no special need for additional state funds. For example, such wealthy communities
as Boxford, Dover, Wellesley, and Weston would benefit considerably if all
municipalities were reimbursed for tax-exempt property. The burden of tax-
exempt property might better be mitigated by state aid or taxes that would
reduce overall local dependence upon the property tax, rather than by direct
reimbursement by the state for taxes lost because of exempt property.

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[1]Governor's Task Force on Metropolitan Development, Equity and Choice in
the Boston Metropolitan Region: A Proposed Course of Action, rev. May 1974,
p. 38.

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Service charges and taxes for the use of property-related municipal services by tax-exempt properties have also been suggested. This would bring in some additional local revenue and perhaps increase the equity of the local property tax. However, such charges would fall mainly on private exempt organizations such as schools, universities, hospitals, and churches, which often can ill afford to pay and which hold only about one-third of tax-exempt property.

Danger of Partial Solutions

Heavy dependence on property taxes has encouraged legislators to promote other partial solutions which have superficial appeal but are likely to create more problems than they solve. As mentioned earlier, tax agreements create the danger of suspicion of political corruption, as well as eroding an already limited tax base. Presumably such agreements would no longer be possible under full valuation. State reimbursement to localities for tax-exempt property would unnecessarily benefit many high-income communities. Other partial solutions are rent control, subsidized housing, and exemptions for hardship cases.

Rent Control. Rent control has been adopted in Brookline, Cambridge, and Boston. This "solution" discourages improvements on existing property and construction of new rental units, as well as encouraging political corruption and "under-the-table" payments by tenants. Rent control is politically attractive in the short run, and its failure is apparent only in the long run.[1] Without property tax reform in Massachusetts, there is a real danger that rent control will be adopted by many more cities and towns.

[1] See Howard Keen, Jr. and Donald L. Raiff, "Rent Controls: Panacea, Placebo, or Problem Child?" Federal Reserve Bank of Philadelphia, Business Review, January 1974, pp. 3-11.

Subsidized Housing. As the cost of fully taxed private housing has escalated in Massachusetts, the demand for various types of subsidized housing has increased. In particular, the programs of the Massachusetts Housing Finance Agency have increased enormously, from 1900 housing units in June 1970 to more than 31,000 by June 1974.[1] Although the MHFA has encouraged good planning and has been well managed, many of its goals could be accomplished equally well by private developers if the burden of the local property tax were reduced by 50 percent. The danger now is that in the long run almost all rental housing in Massachusetts will need some type of public subsidy in order to compete in the housing market.

Exemptions for Hardship Cases. Massachusetts has been generous in granting local property tax abatements to veterans with disabilities, the legally blind, certain widows and minors, and the aged, infirm, and poor. These abatements are granted the taxpayer only upon application to the city or town, and are given in the amount of valuation or tax specified in each clause of the law. In 1972 Massachusetts cities and towns gave up a total of over $60 million in tax dollars in such "clause abatements."[2] In addition, provision was made recently for deferrals of property taxes by persons 65 years of age or older who meet specified residence and income requirements (Ch. 287 of 1974).

It is hard to oppose any of these abatements in a state with property taxes as high as in Massachusetts. However, their value varies unfairly from one

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[1]Massachusetts Housing Finance Agency, Second Annual Report, September 1970, and Sixth Annual Report, September 1974.

[2]Data from the Massachusetts Department of Corporations and Taxation.

municipality to another, depending upon the local level of assessment of property values. Moreover, the bulk of these abatements are not reimbursed by the state. Less than $2 million was reimbursed in 1972, for example. In this way clause abatements erode the tax base of individual communities, thereby increasing the burden on fully taxed properties. Typically such abatements place the greater burden on the communities least able to bear it because many of the disabled, aged, infirm, and poor live in low-income cities and towns where the tax rate is already extremely high. The Mayor of Boston has proposed state reimbursement for cities and towns with above-average losses of local property tax revenues because of state-mandated exemptions to persons over 70 years of age, to certain widows and minors, and to the infirm and poor. (H.3408 of 1975).

The varying effects of these abatements on the tax rate in each city and town are shown in Appendix Table 4-1, columns 2 and 3, which give the reduction in the tax rate if the state had assumed one-half the cost of abatements in 1972. Equal state and local sharing of the cost of abatements would preserve local administration and review of the granting of abatements, and at the same time lessen the burden on lower-income cities and towns.

Circuit Breakers. The staff of the Advisory Commission on Intergovernmental Relations (ACIR) has developed the "circuit-breaker" form for state financing of property tax relief for overburdened individuals.[1] The legislation gets its name from the idea that property tax relief, like the electrical device, cuts in to give state income tax credit when the property tax burden reaches a percentage of family income that the State considers an "overload." As of January 1, 1974, 22 states had adopted circuit-breaker programs with 17 of them limited to the elderly. Income ceilings range from none (in Michigan and Vermont) to $20,000 gross (in California). Benefit limits range from $125 to

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[1]ACIR, Information Bulletin No. 73-6, p. 2.

$800 with the median at $400. About 15 states provide some rebate for renters.

This approach has become so popular that 21 different bills proposing some sort of circuit breaker were introduced in the 1974 Massachusetts legislature, and many have been introduced again this year. There appear to be no constitutional barriers to adoption, with the possible exception of determining whether it is a reasonable exemption from the tax on personal income.[1] However, cost estimates for current proposals range from $100 million to over $300 million annually, a formidable barrier to their adoption.

Circuit breakers provide that some portion of local property taxes in excess of a certain percentage of the total income of a low-income family be paid for by taxpayers in the state as a whole. Thus, a circuit breaker would provide property tax relief for many poor families in high-tax cities and towns. While the circuit breaker attacks regressivity directly by reducing tax burdens of low-income households, unfortunately, it would provide no relief for businesses. Also, it could reduce incentives for citizen participation in local government to some extent; since marginal increases in the tax burden of some eligible families would be partly paid for by the state, these families would have less incentive to "watchdog" their assessments or the general level of spending in their communities. A circuit breaker which provides tax benefits and/or cash refunds to low-income families living in rental quarters would, of necessity, benefit students who are receiving little or no current income. Thus, thousands of college students in Massachusetts who live outside of dormitories might automatically become eligible for cash refunds paid for by the state's taxpayers.

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[1]See Oliver Oldman, Charles K. Cobb, Jr., and Paul Oosterbuis, "Problems Under State Law of Federal Residential Property Tax Relief Proposals," in ACIR, Financing Schools and Property Tax Relief - A State Responsibility, (A-40), January 1973, pp. 216-27.

Perhaps the most serious problem is that almost any circuit breaker which provides substantial relief for low-income families would be extremely expensive. A circuit breaker which costs $100 million to $300 million could eliminate the possibility of more basic tax reform. In summary then, a generous circuit breaker is an extremely expensive partial solution which would probably foreclose the possibility of a more generous and well-rounded fiscal reform package.

The Need for Administrative Improvements

The economic and social consequences of the local property tax in Massachusetts, described above, have all been enhanced by poor administration. A reduction in the present dependence upon the local property tax must be accompanied by administrative improvements at both state and local levels.

Within individual cities and towns, now, the property tax is inequitably administered. Although the announced property tax rate is the same throughout a locality, variations in the levels of assessment among areas or among types of property mean variations in the effective rate. For example, in Boston the lowest ratios of assessment to sales-price have been found in the "better," higher-income areas. Similarly there has been a tendency to under-assess owner-occupied housing in relation to other types of real property, in an effort to reduce the burden of high property taxes on homeowners. As one recent study of property assessment in Boston asserted: "It is fairly commonly known that one-to-four family residences tend to be assessed at smaller percentages of value than apartment buildings or commercial and industrial properties."[1]

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[1] The Jacobs Company, The Assessing Function in Boston, prepared for the Boston Finance Commission, Chicago, Illinois, 1971, p. 17. See also David E. Black, "The Nature and Extent of Effective Property Tax Rate Variation within the City of Boston, National Tax Journal, Vol. XXV, No. 2, June 1972, pp. 203-210; Oliver Oldman and Henry Aaron, "Assessment-Sales Ratios under the Boston Property Tax," National Tax Journal, Vol. XVIII, No. 1, March 1965, pp. 36-49; and ACIR, Financing Schools and Property Tax Relief -- A State Responsibility (A-40), January 1973, Table A-20, pp. 154-157.

A study released in 1974 estimated the impact on Boston real estate of assessment at full market value.[1] Its major finding was that under full market value assessment, in 1972 total property taxes on residential property in Boston would have been 20 percent higher and those on commercial property 19 percent lower than those actually collected in that year. Variations among areas of the city were even more extensive.

While many people support as reasonable an informal classification of property according to use for assessment purposes, such a classification is not in accordance with present legal requirements in the Commonwealth. A proposed constitutional amendment to permit classification of property was rejected by the voters in 1970, although in 1972 special status was granted to agricultural land. The Massachusetts Constitution requires that all types of real property in a taxing district be subjected to the same proportional rate, except for forest and farm lands. The statutes require that property be assessed at full and fair cash value. Until now it has not been considered realistic or even possible to implement all constitutional and statutory provisions, because of the heavy burden of the local property tax and because of administrative problems, in particular the lack of funds and experienced staff.

Assessment levels now vary widely from one municipality to another, as well as within jurisdictions. (See Table 4-3). The law requires biennial determination by the State Tax Commission of the full value of taxable property in each city and town. However, until recently the State Tax Commission has tended to understate full value, particularly in those cities and towns which have not undertaken comprehensive local revaluations of property. The larger

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[1]Daniel M. Holland and Oliver Oldman, Estimating the Impact of 100% of Market Value Property Tax Assessments of Boston Real Estate, The Boston Urban Observatory, August 1974, p. 3.

Table 4-3

Property Assessment Levels*
Massachusetts Cities and Towns
1974

Level of Assessment (Local Valuation as Percentage of Equalized Valuation)	Cities		Towns	
	Number	Percentage of All Cities Equalized Valuation	Number	Percentage of All Towns Equalized Valuation
	39	100.0	312	100.0
90% and over	1	3.5	11	4.2
80-89	3	3.6	20	9.8
70-79	3	5.1	41	14.6
60-69	7	26.2	64	27.2
50-59	3	5.1	59	16.1
50% and over	17	43.5	195	71.8
Under 50%	22	56.5	117	28.2
40-49	2	5.6	30	4.7
30-39	12	34.3	21	5.7
20-29	8	16.5	31	9.4
10-19	0	0	34	8.3
Under 10	0	0	1	...

*Ratio of local assessed valuation to full equalized valuations by the Massachusetts State Tax Commission.

Source: Data from State Department of Corporations and Taxation.

municipalities with much commercial and industrial property have been particularly
reluctant to revalue themselves, apparently believing that continued low assessments
will be an inducement to development. Furthermore, state assessments on cities
and towns and several major state aid distributions depend in part upon equalized
valuations, with more aid and lower assessments going to cities and towns with
lower valuations. This is another inducement to retain low valuations, particularly
in the older cities which are in need of increased financial support from the
Commonwealth.

Local valuations are "equalized" in biennial determinations of full value
by the State Tax Commission, as noted above. However, these "full value"
estimates have in the past been understatements in many cases, as demonstrated
by extensive changes in State Tax Commission assessment ratios after local
revaluations had been carried out. Equalized valuations understandably were
more likely to approach market value for those cities and towns that had
undertaken revaluation studies.

Recently the State Tax Commission has been able to devote more time and
resources to the biennial equalized valuations. The resulting preliminary
assessment ratios for 1974 were markedly different from those for 1972. Using
the 1972 equalized valuations compared to January 1, 1973 assessments, 97 cities
and towns had assessment ratios of 100 percent. Using the preliminary 1974
equalized valuations compared to January 1, 1974 assessments, only 51 of these
cities and towns had ratios exceeding 70 percent. Many cities and towns had
their assessment ratios reduced by more than 20 percent, and in some cases as
much as 40 percent, confirming earlier estimates of undervaluations. Only those
cities and towns that had undertaken local revaluations within the past three
years did not have considerable changes in assessment ratios. Appeals granted
by the Appellate Tax Board changed these ratios drastically only in the case

of Boston, whose equalized valuation was reduced from \$4.6 billion to \$2.6 billion, thus increasing its assessment ratio from about 39 percent to nearly 69 percent. This ruling is expected to increase state aid to Boston by \$20 million.

There has long been need for more expertise at both state and local levels for equitable and efficient administration, including continuing review of property valuation to avoid such drastic year-to-year changes. The Advisory Commission on Intergovernmental Relations has recommended repeatedly that the states improve property tax administration by providing adequate state supervision and requiring appointment of qualified local assessors, full disclosure of assessment methods, and a simple appeals procedure.[1] Massachusetts has yet to undertake any of these reforms. Until now the State Tax Commission has acted in an educational and advisory capacity to local assessors but has not attempted to force local compliance with legal requirements.

A suit brought by the Town of Sudbury against the State Tax Commission has resulted in a court decision that will force all cities and towns in Massachusetts to assess property at full market value, unless the existing laws are changed. The town claimed that it and other cities and towns assessing at full value (as determined for 1972 by the State Tax Commission) had been penalized in distributions of state aid and in payments of state assessments based in part on equalized local property valuations.

The Supreme Judicial Court ruled in favor of Sudbury, finding that the State Tax Commission has the power and the duty to enforce constitutional and statutory provisions requiring assessment of property for tax purposes at full

[1]Advisory Commission on Intergovernmental Relations, Financing Schools and Property Tax Relief - A State Responsibility (A-40), January 1973, p. 69.

and fair cash value. The Commission has ordered local assessors to report by April 1 of this year on plans to assess property at full cash value. In turn the Commission has been asked to report to the Court six months after the Court ruling, which is by July 1, 1975.

While some communities may be able to undertake assessment at full market value without much difficulty, for others the task will be very complex. Recognizing this, the Court estimated four years as the time required to develop a system of assessment with continuous updating to reflect current market conditions. Percentage adjustments in the assessments of various classifications of property, based on current ratios of assessments to sales, were described by the Court as "an improvement over existing conditions but not a final solution."

For older cities with extensive commercial and industrial property as well as a variety of residential property, assessment at full market value will bring hardship as well as complexity. For example, a recent study estimated that full market value assessments in Boston could raise taxes on residential property by an average of 20 percent.[1] At present tax rates such a change could make the cost of home ownership in Boston prohibitive. It was also estimated that while taxes on older commercial properties would be reduced by 38 percent, taxes on commercial property built after 1960 would jump 78 percent. Clearly, assessment at full value under present conditions would put an end to major new construction in Boston, which in recent years has been made possible only by tax concessions. Full value assessments might even force the abandonment of some properties in the center of Boston and other older cities with very high tax rates; this could be another unfortunate consequence of failing to reduce local dependence upon this tax.

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[1]Daniel M. Holland and Oliver Oldman, Estimating the Impact of 100% of Market Value Property Tax Assessments of Boston Real Estate, The Boston Urban Observatory, August 1974, pp. 10-12.

Differential assessment would require a constitutional amendment, and several proposals have been submitted to the General Court for its consideration this year. The Mayor of Boston has proposed a constitutional amendment that would permit the General Court to classify property according to its use for industrial, business, residential, and conservation purposes, and provide for varying rates of assessment and taxation of these classes of property (H.3403 of 1975). For more immediate relief, the Mayor has proposed statutory changes to permit local assessment of property on bases other than full market value (H.5389 of 1975).

Only a drastic lowering of tax rates will permit full value assessment to become a reality in many Massachusetts cities and towns. This will not be feasible without additional sources of local revenue -- increased state aid or a change in local taxing powers.

A State Property Tax

Major tax reform remains the greatest need of state-local finance in Massachusetts. Reduction in the dependence upon the local property tax must be among the first actions taken, substituting a broader-based tax. Property tax abatements, exemptions, and reimbursements are only palliative. Administrative improvements in the present valuation system would bring important gains in equity, but overdependence upon the property tax as a local revenue source would remain.

Dissatisfaction with the local property tax has led many to advocate a state property tax, usually to finance public education. Hawaii and some southern states have undertaken direct state levy of at least part of the tax, and state standards and supervision govern local administration in several states. A state property tax in Massachusetts could go far in solving present problems of inequity and regressivity. It would eliminate present incentives for "snob zoning" and

discouragement of tax-exempt institutional growth, and facilitate more rational

planning to meet social needs. The discriminatory rate of taxation on

shelter in Massachusetts would remain, however. Its elimination depends upon

the gradual development of other broad-based state taxes in the Commonwealth.

The state property tax is not a new concept to Massachusetts; it antedates

local domination of this revenue source, and remains in the form of a "State

Tax" on cities and towns to meet state deficits, last used in 1948.[1] The "state

tax apportionment" is still calculated for purposes of certain assessments on

cities and towns. It is based upon the equalized valuation of property in

each city and town, and shows the share each would pay of $1,000 in state taxes

levied upon the cities and towns by the General Court. Adoption of a state

property tax in Massachusetts could easily be based upon a similar levy, to be

determined by the equalized valuation of property in each city and town. A

statewide rate, based on total equalized valuation in the state, would determine

the total amount to be collected in each municipality. The total state

amount would be collected locally and paid to the state or treated as a cherry

sheet assessment item (described in Chapter 6). It would be possible

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[1]A statewide property tax also survives in Massachusetts in the motor vehicle excise tax, which supplies about 11 percent of total property tax revenue in the Commonwealth. (See Special Commission to Develop a Master Tax Plan, Second Report... Relative to the Massachusetts Revenue Structure /S. No. 1281 of 1971/, p. 53. Originally motor vehicles were taxed by cities and towns as personal property. It became increasingly difficult to include all vehicles in the tax and to value comparable vehicles equally from town to town. Inequities in treatment led to the adoption in 1928 of a statewide excise tax on motor vehicles, technically a payment for the privilege of registering and operating the vehicle. The valuations for various types of vehicles are determined by the State Department of Corporations and Taxation, depending upon make, model, and age. The tax rate is uniform throughout the state, based on an average of local property tax rates during the past three years up to a maximum of $66 per $1,000 (6.6 percent), now in effect. The Registry of Motor Vehicles prepares the tax bills and sends them to local assessors for collection in much the same way as the local property tax. Localities pay the Commonwealth a flat amount per tax bill for this service.

to administer all or a portion of property taxes in Massachusetts in a similar way, using local assessments of real and personal property prepared by state or local personnel, and uniform statewide tax rates. There is no constitutional prohibition of such a tax, and only legislation to establish the form of administration and the method of setting rates would be required.

The best-known proposal for this type of state property tax in Massachusetts was put forward in 1970 by the Special Commission to Develop a Master Tax Plan, as part of a plan for revision of state-local financial operations.[1] This proposal was based upon the assumption by the Commonwealth (through state aid) of 80 percent of the costs of local government, and revival of the state tax mentioned above, which together with the remaining local property tax would meet 40 percent of comined state and local revenue needs.

Adoption of a statewide property tax at a uniform rate to replace the local property tax in part or in total would alter considerably the amount raised in each locality, even if the total amount of revenue raised by the property tax were to remain the same. The importance of improved property valuation to such a state property tax is clear, and there is considerable experience in state assessment and equalization upon which to develop an improved program in Massachusetts. Less clear is the extent of economic windfalls and losses that current property owners might experience, depending upon whether their holdings were located in high-tax or low-tax communities, upon former levels of assessment, and most of all upon the method by which the state property tax is introduced. The redistributive effects of enactment of the Master Tax Plan have been described as "enormous," making it "economically and politically infeasible."[2]

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[1] Special Commission to Develop a Master Tax Plan, First Interim Report... Tentative Proposals for a Master Tax Plan for the Commonwealth (S.1298 of 1971), February 1971, p. 10 ff.

[2] Governor's Task Force on Metropolitan Development, Equity and Choice in the Boston Metropolitan Region: A Proposed Course of Action, rev. May 1974, p. 35.

Certainly there would be problems in a one-shot and all-encompassing revision

of state-local financial relationships. However, one-time redistributional

effects could be avoided by a program for gradual adoption of the state property

tax which included transition steps such as "save-harmless" provisions, to guard

against losses and economic dislocations. Gradual changes would have far less

economic impact than the current inequities that are repeated, year after year,

under the present system.

In order to gain the advantages of a state property tax and at the same

time avoid any local administrative disruption, a statewide property tax in

Massachusetts could be administered in the fashion of the earlier "State Tax"

upon cities and towns, as described above. The present administration of the

property tax could be preserved at the local level while transitional steps were

developed to achieve statewide standards of operation. For example, a state

tax could be levied in an overall amount sufficient to finance a large part of

the cost of local schools. Local property taxes could then be levied in each

city and town to meet its share of state tax and non-school requirements beyond

other state aid furnished, and to supplement school spending. A state property

tax in this form constitutes "a tax-equalizing assessment."[1] It would go a long

way toward meeting the Supreme Judicial Court's requirements, and would sever

a large part of the connection between local property wealth and spending for

education, a link which courts in several states already have found illegal.

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[1]Robert T. Capeless, "Tax Equity and Educational Equality," in Financing
Public Schools, Federal Reserve Bank of Boston Conference Series No. 7, p. 85.

Chapter 5

OTHER LOCAL REVENUE SOURCES

Joan T. Poskanzer and Steven J. Weiss

Massachusetts cities and towns must depend upon the property tax to
provide the major portion of their revenue from own sources -- 86 percent in fiscal year
1971-72 including proceeds of the motor vehicle excise tax. The remaining amount
is for the most part raised by miscellaneous charges and fees. This dependence
upon the property tax is in striking contrast to localities in many other
states, particularly those with the power to levy sales and income taxes. This
chapter will consider both local nonproperty taxes and fees and charges, and
their possible roles in providing a broader revenue base for local government
in Massachusetts.

LOCAL NONPROPERTY TAXES

The property tax is the only tax authorized for local government use in
Massachusetts.[1] In many other states, local governments, particularly cities,
have broadened their sources of tax revenue to include a variety of nonproperty
taxes. Between 1968 and 1972, local government receipts from nonproperty
taxes increased twice as fast as property tax collections. The advantages and
drawbacks of the various types of local nonproperty taxes will be discussed
below, and their possible inclusion as part of a fiscal reform package for
Massachusetts will be considered.

Types of Local Nonproperty Taxes

Local governments (municipalities and/or counties) in 28 states are
authorized to levy sales taxes. In almost all cases the local tax is closely

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[1]The motor vehicle excise is levied by the state even though the bills
are paid to the cities and towns.

coordinated with a state sales tax. State sales tax rates are most commonly 3 or 4 percent, and the local rates vary from 1/2 to 3 percent.[1] Local adoption of taxes has spread rapidly in the last decade, even to small jurisdictions under enabling state legislation. Large cities are most likely to use this tax; local sales taxes exist in over half the cities in the United States with populations exceeding 300,000.[2] These taxes are imposed and administered in a variety of ways: as autonomous municipal taxes, as county-wide taxes, or as state-administered "piggy-backed" levies. Experience with local sales taxes has demonstrated clearly that there are substantial advantages to centralized administration, in terms of both efficiency in collection and reasonable distribution of revenues raised.[3]

Local taxes on income, earnings or payrolls are imposed by over 4,000 large and small jurisdictions in 13 states and Washington, D.C. Almost all municipal income taxes extend to commuters for earnings within the jurisdiction, though rates are sometimes lower for nonresidents. In some cases, unearned income is included with wages and salaries in the tax base for residents. Net income of corporations and unincorporated businesses is included in the base of most city income taxes.[4] In Pennsylvania, school district income taxes appropriately cover only resident individuals. Local payroll taxes, which are much less common than local income taxes, may be levied on either number of employe

[1]Advisory Commission on Intergovernmental Relations (ACIR), Federal-State-Local Finances: Significant Features of Fiscal Federalism, 1973-74 Edition, M-79, February 1974, Tables 136 and 137.

[2]Tax Foundation, Inc., State and Local Sales Taxes, August 1970, p. 51.

[3]Ibid., pp. 56-60.

[4]Information on local income taxes is contained in ACIR, Federal-State-Local Finances, op. cit., Tables 150 and 151; ACIR, The Commuter and the Municipal Income Tax, M-51, April 1970, pp. 6-8 and Table 2; and Commerce Clearing House, Inc., State Tax Handbook, 1974.

or size of payrolls. Denver, for example, levies an Employee Occupational Privilege Tax of $2 per month for each employee earning at least $250 per month. The Newark 1 percent payroll tax applies to all employers (non-profit as well as profit-making) with payrolls over $2500 per quarter.[1] Most localities administer their own income or payroll taxes, but some states have encouraged municipal income taxes by providing arrangements for state administration, joint collection, or piggy-backing on state income taxes.

City income tax rates do not have to be very high to produce substantial proportions of municipal tax collections. For example, with rates ranging between 1 and 2 percent, many cities in Ohio generate well over half of their local revenue from an income tax.[2]

Arguments Favoring Local Nonproperty Taxes

Local nonproperty taxes improve municipal revenue structure and provide relief from high property tax burdens. Local income, payroll or sales taxes can produce substantial revenues at low rates and thereby relieve pressures on city property taxes. In 1971-72, the 48 largest cities in the United States derived over 15 percent of their total revenues from local income or sales taxes, and their property tax collections averaged 22 1/2 percent of total revenues. Boston, in contrast, derived 55.6 percent of its revenue from property taxes. Table 5-1 presents comparative revenue structure data for Boston and 12 cities with population over 500,000 that derive over 15 percent of their total revenues from local sales or income taxes; while the figures in the table are affected by other factors as well (e.g., relative contributions of state and Federal aid and nontax sources such as fees, charges and utility revenues),

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[1]ACIR, Federal-State-Local Finances, op. cit., Table 150, p. 294.

[2]ACIR, The Commuter and the Municipal Income Tax, Table 2.

Table 5-1

Major Revenue Sources: Cities With Significant Local Nonproperty Taxes[a]
Compared with Boston, 1971-72
(Percentage of Total Revenue)

	Property Taxes	Sales Taxes[b]	Income Taxes	Intergovernmental Revenues	Other[c]
Cleveland	17.5	0.4	17.3	14.5	50.3
Columbus	6.5	0.5	31.2	19.1	42.7
Denver	14.8	17.0	---	32.8	35.4
Detroit	21.9	2.4	13.6	32.1	30.0
Houston	36.8	19.3	---	6.5	37.4
Kansas City	13.1	14.2	18.8	14.5	39.4
New Orleans	17.7	23.9	---	23.9	34.5
New York	21.3	8.2	8.1	40.9	21.5
Philadelphia	15.2	0.3	33.0	22.8	28.7
Phoenix	13.7	25.7	---	22.3	38.3
St. Louis	17.9	18.2	17.6	13.9	32.4
Washington, D.C.	13.9	15.0	13.5	42.6	15.0
48 Largest U.S. cities	22.5	8.3	7.0	33.1	29.1
BOSTON	55.6	---	---	25.5	18.9

[a] Includes all U.S. cities with population over 500,000 and at least 15% of total revenues derived from sales and/or income taxes.
[b] Includes general sales and gross receipts taxes and selective sales taxes.
[c] Fees and charges, utility revenues, and miscellaneous general revenue.

Source: U.S. Bureau of the Census, City Government Finances in 1971-72, Table 7.

it does appear that local income and sales taxes in these cities have pro-
vided a substitute for property tax revenues. Since both income and sales
tax yields are more responsive to economic growth than a property levy,
adding them as municipal revenue sources should serve to restrain property
tax growth over time in addition to providing a productive new revenue source.[1]

Boston's reliance on local property tax revenue was the highest of any
major city in the Nation in 1971-72. At that time the only other city of
over 500,000 population depending on property taxes for more than half of its
revenues was Indianapolis, which like Boston had no local sales or income tax.
Significantly, a property tax relief program enacted in Indiana in 1973
included authorization for state-collected county income taxes. The estimates
in Table 5-2 (presented here purely for illustrative purposes) indicate the
potential impact of various hypothetical local nonproperty taxes on property
tax rates in the three largest cities of Massachusetts.

Local nonproperty taxes enable cities to collect revenues from non-
resident commuters, shoppers, and visitors who benefit from employment, edu-
cational, commercial, recreational, and cultural opportunities in the city
without contributing directly to pay differentially high central city costs.
Per capita costs for many municipal functions tend to be higher in large
cities than in surrounding towns of the metropolitan area, and the differences
are at least partly attributable to the use of central city facilities by
commuters, shoppers, and visitors.[2]

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[1]See Elizabeth Deran, "Tax Structure in Cities Using the Income Tax,"
National Tax Journal, Vol. XXI, No. 2, June 1968, pp. 147-52.

[2]ACIR, The Commuter and the Municipal Income Tax, p. 13.

Table 5-2

Estimated Change in Local Property Tax
With Adoption of Municipal Non-Property Taxes, Fiscal Year 1975

| | Percent | | |
Hypothetical Municipal Taxes	Boston	Springfield	Worcester
1. 1% Personal Income Tax "piggy-back"			
(a) residents only	-6	-9%	-9
(b) residents plus commuters	-9	-10	-11
2. 1% Sales Tax "piggy-back"			
(a) present base	-3	-6	-5
(b) expanded base	-5	-10	-8
3. 1% Payroll Tax	-11	-14	-9

NOTES: Percentage decreases in property tax are computed on the basis of projected
FY 1975 levies. The yields of the hypothetical taxes were estimated as
follows:

1(a) Personal Income Tax: residents only. City personal income
figures for 1969 were taken from the 1970 U.S. Census, then
inflated to 1972 using SMSA data and to estimated current
levels on the basis of personal income growth for the state
as a whole. Dividing the resulting figure by a similar
estimate for the state as a whole yielded each city's es-
timated proportion of state personal income; this ratio,
multiplied by the estimated yield of a 1% rate increase in
the existing personal income tax gives the estimated yield
of the tax.

1(b) Personal Income Tax: residents plus commuters. Estimates in 1(a)
were increased by multiplying by the city's work force/labor force.
ratio.

2(a) Retail Sales Tax Piggy-back: present base. Each city's proportionate
share of the state retail sales tax base was estimated using figures
from the 1972 Census of Retail Trade. Multiplying the projected
yield of the present sales tax by one third gives an estimate of
the yield from a 1% add-on statewide. This figure was multiplied
by the cities' shares to generate estimates of the yields from 1%
local piggy-back rates.

2(b) Retail Sales Tax Piggy-back: expanded base. The yields derived in
2(a) were increased by a factor reflecting the impact of expanding
the present sales tax base, as described in the chapter on sales and
excise taxes.

3 Payroll Tax. 1970 payroll figures for covered employees in each city
from state sources (DES) were blown up to a more comprehensive measure
by multiplying by a ratio of Census to DES work force. The resulting
figures were then inflated to estimated current levels using Census
estimates of growth in taxable payrolls to 1972, and state average
personal income growth since 1972.

Municipal income or payroll taxes have often been enacted or justified explicitly to exact a tax contribution from commuters.[1] Municipal sales taxes can achieve the same result with regard to shoppers. Measurement of the net burden imposed on a city by nonresidents is an inherently difficult problem. Tax rates for municipal nonproperty taxes are generally determined by political or revenue yield considerations, and in practice, nonresidents included in the city's fiscal base inevitably pay something more or less than their unmeasurable "fair share" of municipal costs.[2] However, in a situation such as Boston's, where the revenue share of property taxes is exceptionally high and the level of state aid is relatively low, the argument for some kind of contribution from nonresidents is especially strong. Imposition of municipal nonproperty taxes that are partly exported to suburbanites can be further justified "as a sort of compensating move, particularly by the large central cities to counterbalance the restrictive zoning practices of neighboring jurisdictions which force the 'high cost' citizen to reside in the central city."[3]

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[1]The Boston Finance Commission offered for consideration during 1972 a payroll tax, "designed to capture the nonresident who earns his daily bread in the city...." City of Boston, Finance Commission, Annual Report to the Legislature for 1972, Volume LXVIII, p. 14.

[2]On the difficulty of measuring costs imposed on cities by nonresidents, see Roy W. Bahl, "The Urban Fiscal Problem: Piecemeal vs. Aggregate Solutions," Land Economics, Vol. XLVI, No. 1, February 1970, pp. 44-5; Woo Sik Kee, "City-Suburban Differentials in Local Government Fiscal Effort," National Tax Journal, Vol. XXI, No. 2, June 1968, pp. 183-9, and "Comment," by David Davies, National Tax Journal, Vol. XXII, No. 3, September 1969, pp. 422-3; William B. Neenan, "Suburban-Central City Exploitation Thesis: One City's Tale," National Tax Journal, Vol. XXIII, No. 2, June 1970, pp. 117-139; ACIR, The Commuter and the Municipal Income Tax, pp. 13-15; and R.S. Smith, "Are Non-Residents Contributing Their Share to Core City Revenues?" Land Economics, Vol. XLVIII, No. 3, August 1972, pp. 240-7.

Special purpose taxes have been imposed by some cities to recapture some of the city costs attributable to serving as an employment center, e.g., the Denver "Employee Occupational Privilege Tax," and Chicago's "Employer's Expense Tax."

[3]ACIR, The Commuter and the Municipal Income Tax, p. 5.

One consequence of the large city's function as a vital center for government, social, and cultural affairs is the concentration of tax exempt property, a situation exemplified in the extreme by the case of Boston. Clearly, it is inequitable that city property taxpayers alone should subsidize institutions that provide services benefiting people living throughout the broader metropolitan area and beyond. Local relief from the burden of exempt property could be provided by municipal payroll or personal income taxes that would cover employees of exempt organizations.

Problems With Local Nonproperty Taxes in Practice

The arguments in favor of local nonproperty taxes--yield, property tax relief, and indirect compensation for nonresidents' use of the central city and the burden of tax exempt property--apply forcefully to Boston and other Massachusetts cities. However, two practical considerations raise doubts as to whether municipal sales, income, or payroll taxes should be recommended for local governments in Massachusetts.

First, local nonproperty levies may tend to distort locational decisions on the part of individuals and businesses. This is particularly true of a city like Boston which is a small geographic core of a large metropolitan area. It is too easy for individuals or businesses to move in order to escape a purely local tax. Even though the impact of a local tax on the behavior of people and firms is difficult to predict with any confidence,[1] this problem could understandably be an effective deterrent to the adoption of such taxes by the major cities in Massachusetts where policymakers are already concerned with trying to keep residents and businesses from moving out. (Because of image factors or

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[1]For an attempt to measure the impact of a sales tax rate differential on retail sales in the central city, see John L. Mikesell, "Central Cities and Sales Tax Rate Differentials: The Border City Problem," National Tax Journal, Vol. XXIII, June 1970, pp. 206-13.

differential tax incidence results in particular cases, this could be a valid

concern even if the nonproperty tax revenues were dedicated dollar for dollar to

property tax relief.)

Local nonproperty taxes could not be imposed without enabling legislation

from the state legislature and possibly a constitutional amendment as well,

depending on the type of tax.[1] If legal authorization were extended to Massa-

chusetts localities in general, adoption of local nonproperty taxes might still

be restrained by fears of interjurisdictional tax competition. This problem is

likely to be more severe in Massachusetts than in other parts of the country,

since local jurisdictions are small and differ widely in their present local

property tax rates and revenue needs. For each city and town that could benefit

greatly by tapping a new revenue source there is a jurisdiction nearby that is

in significantly better fiscal condition and that could gain by maintaining the

status quo. As a solution to this problem, it has been suggested that local

sales or income taxes, piggy-backed on state levies in the interest of efficient

administration and compliance, should be made mandatory and should have minimum

and maximum limits.[2] Such an arrangement would be an effective way to reduce

aggregate property taxes, but another practical problem would remain.

The second general practical problem with local nonproperty taxes is that

the distribution of new revenues may be haphazard, bearing little relation to

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[1]See "First Report of the Special Commission to Develop a Master Tax Plan
Relative to Constitutional Limits on the Tax Power," Commonwealth of Massachusetts,
Senate Doc. No. 126, September 1969.

[2]Joseph A. Pechman, "Fiscal Federalism for the 1970's," National Tax Journal,
Vol. XXIV, No. 3, September 1971, pp. 281-90.

the revenue needs of localities.[1] Under a piggy-back sales tax, a prosperous

jurisdiction may reap a substantial windfall by virtue of having a large

shopping center, while seriously depressed localities with high property tax

rates and severe revenue needs may gain very little from either a local sales or

local income tax levy. In order to deal with such distributional problems, some

states have authorized local taxes only over broader areas (e.g. counties) and

have established formulas for allocating the total proceeds to constituent juris-

dictions according to some measures of relative need. In other states where

local sales taxes became widespread, state governments effectively took over

the local levies by raising the state sales tax rate and set up formulas for

refunding a portion of the new revenue to local governments on rationalized

criteria.[2]

The locational and distributional problems of local nonproperty taxes can

best be ameliorated by enlarging the geographic base to encompass multiple

jurisdictions and using a reasonable formula approach to distribute the revenues.

Unfortunately, since counties in Massachusetts do not represent coherent economic

areas, there are no existing local political jurisdictions that are large enough

to overcome the location distortion problem of local nonproperty taxes and at

the same time provide reasonable bases for redistribution of new revenues.[3]

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[1]See L. L. Ecker-Racz, The Politics and Economics of State-Local Finance,
Prentice-Hall, Inc., 1970, p. 109; and Tax Foundation, Inc., op. cit., p. 59.

[2]Tax Foundation, Inc., op. cit., pp. 59-61.

[3]Broader political jurisdictions that would meet both requirements have been
proposed in recent bills calling for the creation of regional or metropolitan
governments. One bill, H. 2896 of 1974, would provide funding for proposed
regional governments partly through a payroll tax not to exceed 2 percent. See Gov
Task Force on Metropolitan Development, Position Paper No. 1, Supra-Local Concerns,
rev. May 1974, p.7.

Nonproperty Taxes for Massachusetts Cities--or An Alternative?

Boston and the other central cities in Massachusetts metropolitan areas could benefit substantially from the property tax relief made possible by local income, payroll, or sales tax levies. Presently, their property tax bases are inequitably strained as a result of extra burdens imposed because of services and facilities they provide for nonresidents in their respective metropolitan areas. In addition, "municipal overburden" weighs heavily upon many central cities. They must provide more health, protective, and sanitary services, and have large concentrations of low-income residents. The case for new revenues to compensate the state's metropolitan centers is strong, yet in the Massachusetts setting conventional municipal nonproperty taxes do not appear to offer a feasible solution.

The desirable effects of local nonproperty taxes possibly could be obtained in Massachusetts by alternative means. This might be accomplished by establishment of a new state aid program, a "metropolitan distribution" specifically designed to channel funds to metropolitan centers. Revenues could be raised by an appropriate state levy (such as a surtax on earned income or a new payroll tax) and earmarked for formula redistribution to provide property tax relief to local governments that presently bear extra burdens due to provision of metropolitan area services.

We made repeated attempts to devise a formula that would yield results similar to a metropolitan areawide nonproperty tax with redistribution of proceeds, but no plan tested proved satisfactory. Even assuming the existence of a metropolitan or regional jurisdiction that could be the administrative basis for such a plan, it was difficult to formulate an allocation scheme that would channel funds to central city areas without at the same time yielding peculiar results for certain other localities in the same metropolitan areas.

The problem is illustrated by Table 5-3 which shows results of the "metropolitan distribution" scheme that seemed to work best. It is based on funding of around $100 million and distribution of proceeds intended to help major employment centers through a formula reflecting the number of jobs in a jurisdiction, the ratio of jobs to resident labor force (a proxy for in-commuting), and relative total property tax effort. (The exact formula is described in the note to Table 5-3.) The plan does succeed in channeling a significant amount to Boston (over half the total funds), but other results are impossible to justify. For example, as the table shows, Somerville receives very little benefit from the program. This is because its ratio of work force (jobs) to resident labor force is quite low. Bedford, by contrast, receives a large amount because it has an extraordinarily high work force/labor force ratio. Chelsea, with a work force of less than 15,000, receives no funds at all. Reducing the work force limit below 15,000 to include Chelsea would cause inclusion of other jurisdictions distinctly not in need of special aid.[1]

The failure of this approach illustrates the difficulty of devising a multifactor formula specifically to aid central cities. An alternative approach, which is followed in some other states but not pursued here, is to

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[1]Another disturbing result is that the work force/labor force ratio, a measure of commuter flows, and retail sales per capita, a proxy for non-resident "burden" from shopping trips, are not at all strongly correlated, at least in the Boston area.

Table 5-3
Entitlements Under a $100 Million "Metro Distribution"
FY 1975 Estimates

	Local Share ($000)	Estimated Percentage Decrease in Local Property Tax
Attleboro	1,250	-11
Bedford	720	- 9
Boston	53,300	-15
Braintree	820	- 5
Brockton	1,370	- 4
Brookline	450	- 1
Cambridge	7,950	-15
Chicopee	710	- 5
Fall River	2,300	- 9
Fitchburg	1,000	- 7
Framingham	1,300	- 5
Holyoke	1,020	- 7
Lawrence	1,500	- 8
Lowell	1,510	- 6
Lynn	2,670	- 7
Malden	500	- 2
New Bedford	1,630	- 6
Newton	960	- 2
Pittsfield	1,510	- 7
Quincy	1,310	- 3
Salem	1,050	- 6
Somerville	420	- 2
Springfield	3,690	- 7
Waltham	2,680	-10
Worcester	6,920	-11

Notes: Percentage decreases in property tax are computed on the basis of FY 1975 levies.

The "Metro Distribution" scheme yielding the results presented here works as follows:

(1) Only cities and towns with a large work force (over 15,000 employees) are eligible for grants.

(2) Each locality's share of the distribution is calculated as follows:

S_i = share for city or town i

$= \dfrac{F_i}{\Sigma F_i}$, where F_i is the number for each eligible city or town yielded by the following formula:

$$F_i = (WF_i) \times \left(\frac{WF}{LF}\right) \times \left(\frac{r_i}{\bar{r}}\right), \text{ where}$$

WF = work force (number of jobs)
LF = labor force (resident basis)
r_i = total property tax rate (equalized)
$\bar{r}$ = state average total property tax rate (equalized)

(Tax rates are preliminary estimates)

(3) The results were constrained so that no city or town gets more than 25% of its non-school property tax levy reimbursed. (This constraint affects only Bedford and cuts the total cost of the distribution to $98.5 million.)

set aside an aid fund explicitly for the largest cities in the state, or an amount to be distributed among municipalities according to need.[1]

Conclusion

Local nonproperty taxes would be productive revenue sources for Massachusetts cities, but they do not appear to be feasible in the Commonwealth because of the economic disadvantages and political problems noted above. Unfortunately, an alternative approach to aid central cities by designing a special "metropolitan distribution" also appears impractical.

NON-TAX REVENUE SOURCES

The question of whether to tax generally or charge user fees to finance specific services has been the subject of renewed interest during the last few years, particularly at the local level where new sources of tax revenue are limited. In areas where property taxes are particularly oppressive, the institution of fees and assessments has even been suggested as preferable to further property tax increases. "Land service charges," fees for public services that benefit real property directly, have also been proposed as a means of gaining revenue from holders of property exempt from the traditional property tax.

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[1] ACIR lists 13 states that in 1973 had programs of $25 million or more for sharing state taxes with local governments on a "needs" basis. For example, New York distributes a part of personal income tax receipts in per capita amounts, depending upon the type of local government, per capita full value of real property, and per capita personal income. New Jersey distributes a part of sales tax revenue on a population basis to municipalities with effective property tax rates exceeding 1 percent of property value. Michigan share a part of sales tax, intangibles tax, and personal income tax receipts with local governments, in part according to population and in part according to relative tax effort times population. See ACIR, Federal-State-Local Finances..., 1973-74 Edition, M-79, February 1974, Table 56.

It seems to be generally agreed that financing user-related services by fees, while desirable, cannot provide a solution to local financial problems. On the other hand, considerably more revenue could be raised, and authorities are now giving more attention to the pricing of public services. Additional measurements of both the costs of such services and the benefits to the users will be required before many such levies can be considered. Furthermore, charges and assessments are not deductible for Federal income tax purposes.

Both the states and their localities already raise considerable revenue from a variety of current charges and assessments. In 1971-72 charges and miscellaneous revenues (not including utility revenues) accounted for 24.1 percent of general revenues of local governments from own sources and 15.3 percent of such state revenue. The comparable figures for Massachusetts were 13.7 percent and 11.6 percent, respectively.[1] Hospitals, highways, school lunch programs and institutions for higher education all provided some state and local revenue as well as incurring expenditures. Similarly, governments derived revenue from sewerage and sanitation services and improvements, parks, housing, airports, parking, water transport and terminals, and some commercial activities such as liquor stores.

Major sources of non-tax revenues for the Commonwealth include motor vehicle registrations and operator license fees, reimbursements for care in state hospitals and other institutions, and special assessments on cities and towns for the activities of the Metropolitan District Commission. A new source of revenue, the proceeds of the state lottery, was added beginning in

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[1]U. S. Bureau of the Census, Governmental Finances in 1971-72, Tables 4 and 17.

fiscal year 1973, when it provided nearly 2 percent of total state revenue from own sources. Local governments in Massachusetts now receive far less than average revenues from nontax local sources, however. A study giving the ratio of 1966-67 fees and charges (including utility revenues) to general revenue from taxes in 112 U.S. cities with over 100,000 population showed that Boston had a lower "fee intensity" (.17) than all but 14 of these cities, among them New Bedford and Springfield, Massachusetts.[1]

In 1971-72 the comparable ratio of local fees and charges to local taxes collected was .23 in Boston; the ratio for the 48 largest cities was .46, and for all U.S. cities it was .58. At the same time Boston's per capita expenditures were high, exceeded only by New York City, Washington, D.C., and Baltimore.[2]

While it would appear that the city of Boston could raise still more revenue from fees and charges, this source is necessarily limited to a considerable extent by the need for a metropolitan approach in providing services in the Boston area. Metropolitan and state public authorities operate the airport, the transit system, and toll roads and bridges, and regulate water transport and terminals in the port. The Metropolitan District Commission provides a major part of the sewer and water systems to localities in the area, as well as a network of parks, parkways, and recreation services. In addition, the major utilities in the Boston area are not city-operated. On the other hand, Boston's sewer use and water charges do not cover all of the city's costs for these services. The city's fees for services should be reviewed and might reveal other

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[1]Mushkin, Selma J. and Richard M. Bird, "Public Prices: An Overview," Table 1.6, in Mushkin, Selma J., ed., Public Prices for Public Products, The Urban Institute, Washington, 1972, pp. 13-17.

[2]U.S. Bureau of the Census, City Government Finances in 1971-72, Tables 1, 6, and 7.

potential sources of funds, such as charges for solid waste disposal.

Throughout the United States, the larger cities rely less on current charges, miscellaneous revenues, and utility revenue than do smaller cities, turning instead to non-property taxes and more state aid for increased revenue. Until these options have been made available to the larger Massachusetts cities, city officials will have to give more consideration to user charges as a means of meeting more of the city's operating costs. It must be stressed, however, that no one views fees and charges as a possible solution to central city financial problems.

Chapter 6

PRESENT STATE AID PROGRAMS

Richard F. Syron and Steven J. Weiss

The heavy reliance on local property taxes in Massachusetts reflects the

Commonwealth's relatively low level of fiscal aid to the cities and towns. This

chapter describes the present distribution mechanisms for state aid for public

education and other local functions, and analyzes the impact of our present local

aid system on the property tax rates of rich and poor towns and the largest cities

in the state.

Present Level of State Aid to Cities and Towns

Even though most local aid in Massachusetts goes to education, we still lag

behind most states in the share of local school expenses financed by state funds.

In fiscal year 1975 approximately 36 percent of local school expenses in Massachusetts

will be financed by state aid. In fiscal year 1973, the latest year for which

tne data are available, the national average state share of public school costs

was 48 percent.[1] Massachusetts compares even less favorably in nonschool aid,

paying 16.0 percent of local noneducational expenses in fiscal year 1973 versus

27 percent in the United States as a whole. However, in 1968 the Commonwealth

did assume direct responsibility for most welfare payments, a financial responsibility

left to local governments in most states.

Present state aid in Massachusetts is both too low and oriented too much

toward education. While educational costs accounted for 47 percent of all local

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[1]U.S. Department of Commerce, Governmental Finances in 1972-1973 and State
Government Finances in 1973. Federal passthroughs are included in these data
thereby overstating the level of pure state aid.

expenditures in 1973, 70 percent of state aid was for this function. This orientation toward education is particularly burdensome to some of our older cities which have exceptionally high noneducational costs.[1]

Problems caused by the low level of state aid to local governments in Massachusetts would be mitigated if the existing aid funds were distributed in an equalizing manner. However, this is not the case. The Commonwealth distributes aid and assesses charges to cities and towns through a hodgepodge of formulas and schemes that are often ineffective and sometimes contradictory. It should be noted that an important new law, Chapter 492,[2] passed this year, improves state-local fiscal relationships. Some of the changes brought about by this law are discussed below. The changes show up on the "cherry sheet" which the Commonwealth sends every city and town annually, indicating how much the locality should receive from a series of state programs and how much it is charged for certain services. In fiscal year 1975 the Commonwealth will transfer about $756 million to the localities if the programs are fully funded and charge the municipalities about $231 million for a variety of services it or a variety of agencies, including county government, provides.[3] Table 6-1 summarizes the 1975 cherry sheet disbributions to cities and towns for the state as a whole (assessments are discussed in Chapter 9).

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[1]See Table 6-2, below.

[2]Massachusetts Legislature, Joint Committee on Taxation, H6100, Report of the Committee Recommending Corrective Changes in Certain Distribution and Assessment Formulas. (Also see 1974, Ch. 492, H6100 amended version.)

[3]These data were taken from the Massachusetts Department of Corporations and Taxation "cherry sheets" and assembled by the Research Department of the Federal Reserve Bank of Boston.

Table 6-1

State Aid to Cities and Towns, Fiscal Year 1975

	State Aid ($ millions)	Percent of Total
School Aid		
Chapter 70 (plus adjustments)	$373.3	49.4%
Special Education Programs	72.4	9.6
School Construction	65.0	8.6
School Transportation	35.6	4.7
Regional Schools	24.0	3.2
Vocational Education	20.6	2.7
Other, School-related	23.4	3.1
Sub-Total	$614.3	81.3
Nonschool		
Highway Fund Distribution	$ 35.6	4.7
Lottery Distribution	53.2	7.0
Other Nonschool	53.1	7.0
Sub-Total	$141.9	18.7
TOTAL	$756.2	100.0%

Source: Fiscal year 1975 Cherry Sheet, All Municipalities (Form CS-1 and Supplement).

Most state aid programs distribute earmarked funds on a lagged basis as a portion of actual local expenditures, thereby giving more money to wealthier cities and towns which can afford to spend more on reimbursable programs. Only a few programs attempt to distribute aid on an equalizing basis, reflecting relative need or ability to pay. There are over 40 different programs for aiding cities and towns in Massachusetts; only those that are most important in terms of total dollar impact will be discussed below.

School Aid

Chapter 70

Chapter 70 school aid is the most important single item among the state's distributions to the cities and towns. It accounts for 49 percent of all local aid in fiscal year 1975 and is also one of the few major programs that is intended to allocate funds on an equalizing basis. The formula for school aid is designed to take into consideration ability to pay, or wealth, as measured by relative property valuation. Parameters of the formula imply that the state will pay for 35 percent of the "reimbursable" school expenses of a town with "average wealth."[1]

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[1]Ability to pay for schools is measured in the formula by equalized valuation per school attending child (SAC). The ratio of a particular town's equalized valuation per SAC to the average for the state is called the "valuation percentage." This ratio determines the town's "school aid percentage" according to the following formula:

$$\text{School Aid Percentage} = 100\% - (65\% \times \text{"valuation percentage"})$$

Thus, a district with "average wealth" (equalized valuation per SAC equal to the state average) has a "valuation percentage" of 100 percent and a "school aid percentage" of 35 percent; a "valuation percentage" greater than 100 percent implies a "school aid percentage" below 35 percent, and vice versa. The town's school aid for a given year is then computed by multiplying its reimbursable expenditures for the previous year by its "school aid percentage."

While Chapter 70 was designed to have an equalizing effect by giving more aid to poorer communities, several factors combined to contravene this intent. Since state aid is based upon the amount spent on schools, Chapter 70 rewards wealthy towns which can raise more money for education with a relatively low tax effort.[1] The practice of reimbursing cities and towns on the basis of expenditures made the year before penalizes the poorer cities and towns that are less able to finance increased expenditures out of their own funds during the lag period. Furthermore, all towns are guaranteed 15 percent aid, regardless of their relative wealth. Since the wealthier communities receive significant aid, even though an unconstrained formula would generate aid percentages well below 15 percent (and negative in many cases), the equalizing effects of the program are severely diminished.

Finally, Chapter 70 has not even been fully funded in the last few years. In 1969 the legislature established a guaranteed fund for the three historical distribution programs, and Chapter 70 school aid was set as the third priority claim on the fund.[2] Because the pool of funds has not grown as fast as distribution requirements in recent years, Chapter 70 entitlements have been pared down on a prorated basis. To the extent that the distributions are equalizing, failure to fully fund Chapter 70 has the equivalent effect of a regressive tax on the cities and towns. The antiequalizing effect of prorating entitlements

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[1]This effect is somewhat mitigated by the constraint that for the purpose of computing aid entitlements reimbursable expenditures per pupil cannot exceed 110 percent of the state average.

[2]The first and second priorities were the reimbursement for loss of taxes on manufacturing machinery (the "machinery distribution") and special education aid.

is reduced by Chapter 492, which eliminated a prior claim on the fund[1] and

provided for increased school aid financing. Equalizing effects of Chapter 70

would be further enhanced if in the event of budgetary shortfall entitlements

were recomputed by adjusting the formula rather than simply prorating the

original entitlements. If funds are insufficient to reimburse 35 percent of

reimbursable expenses for a town of average wealth (as intended by Chapter 70),

there is some lower percentage target (e.g., 30 percent) at which the formula

can be fully funded. Recomputing entitlements at the lower target level

results in a less than proportionate reduction of aid for poorer districts.

Such an adjustment, which is used in the Vermont school aid formula (Title 16,

section 3472 Vermont Statutes Annotated), is superior to simple prorating.

Regional School Aid

Chapter 492 mandates a substantially improved regional school aid formula

to go into effect in fiscal year 1976. The new formula includes an equalization

factor (the same one used for Chapter 70 school aid) for the first time, and

reimbursements will be proportional to actual regional school expenditures.

The present regional school aid mechanism gives any city or town which belongs

to a regional school district a bonus of 15 percent of its Chapter 70 aid. The

formula does not take account of the number of children attending regional

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[1]The "machinery distribution" was eliminated. This distribution stemmed from
a change in state law in 1935 exempting manufacturing machinery from local property
taxes and placing it under the state corporate excise tax. Since that time
approximately $9 million has been distributed to the cities and towns each year
to reimburse them for the state takeover. This reimbursement has been based on
the 1935 assessed value of manufacturing machinery, an approach that clearly has
been inappropriate for some time given the change in the geographical distribution
of industry in the Commonwealth. See Massachusetts Taxpayers Foundation, Local
Aid: The Beginning of Reform, Boston, March 1974.

schools or the municipalities' actual regional school costs; nor does it reflect ability to pay. The program reimburses many towns for much more than their actual regional school costs.

School Building Construction Assistance

The formula for school construction aid is designed to have an equalizing impact by reimbursing between 25 and 65 percent of costs. However, the program has paid 65 percent for all school construction and interest payments on debt up to this year in "depressed areas"; and since most Massachusetts cities and towns are in areas classified as depressed (by the United States Department of Labor), equalizing effects have been virtually nonexistent. Chapter 492 restores some equalizing effects to this program through new construction aid formulas which became effective January 1, 1975 and incorporates the Chapter 70 aid percentages.

Special Education Distribution

Aid for special education programs and classes for handicapped children is generally reimbursed on a percentage of actual cost basis, although in some cases the full program costs are covered. In fiscal year 1975 an additional $26 million under the new Chapter 766 special education law will be distributed to the cities and towns on the basis of the Chapter 70 formula.

School Transportation Aid

Cities and towns are reimbursed by the Commonwealth for a substantial portion of their school transportation costs. For approved regular transportation expenses, school districts are reimbursed 100 percent of costs in excess of $5 per pupil. Special aid programs cover transportation of students for specific purposes, with reimbursements at either 50 or 100 percent.

State Aid for Functions Other than Education

Highway Aid

Massachusetts has three principal Highway Aid Programs: Chapter 90, Chapter 81 and the Special Highway Fund. Chapters 90 and 81 reimburse cities and towns for varying percentages of the actual cost of maintaining and constructing roads. In 1971 the gasoline tax was increased by one cent and the proceeds set aside for a new highway aid program. This new program does have some equalizing impact since the distribution takes account of each locality's equalized valuation. The formula for distributing Special Highway Fund Reimbursements is:

$$\text{Highway Aid} = \left[400 + \$7 \left(\frac{\text{Registered Vehicles}}{\text{Road Miles}} \right) - \$0.0001 \left(\frac{\text{Equalized Valuation}}{\text{Road Miles}} \right) \right] \times \text{Local Road Mileage}$$

This formula considers road usage as a function of vehicle density and ability to pay as measured by valuation per mile.[1]

One additional comment on Highway Aid and Highway Fund is appropriate here. Under the Massachusetts Constitution revenues generated from highway related taxes, such as the gasoline excise tax, may only be used for functions related to transportation. Until this year they could be used only for highway related functions. This has resulted in a great deal of effort attempting to justify programs as being highway related. Also, in relation to need, Highway Fund revenues are sometimes more ample than those in the general fund. As a result, programs may be approved because of their revenue source and not their merit. Channeling all revenues to the general fund to be allocated according to the same criteria would be an improvement. A referendum item, which was approved by the voters in 1974, permits using highway fund revenues for Mass Transit, a step in the right direction.

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[1]Governor's Task Force on Metropolitan Development, op. cit. An error in the original wording of this section (31) of Chapter 81 caused road mileage to be interpreted as squared, with the result that communities with higher road mileage received much more aid than originally intended. Chapter 492 rectifies this error.

Lottery Distribution

The lottery distribution is the only program in Massachusetts that distributes untied state aid for general municipal services. This program, funded at $53.3 million in fiscal 1975, distributes aid through a new and progressive approach called an equalizing municipal grant program (EMGs). Virtually all other state aid in Massachusetts is now earmarked for specific programs, distorting local expenditure patterns and making it difficult for municipalities to vary services according to local desires.[1]

The equalizing municipal grant formula used for the lottery is very simple, distributing funds in direct proportion to population and in inverse proportion to equalized value per capita. The formula for determining an individual community's share of the lottery distribution is:

$$\text{Town}_i \text{ Share} = \cfrac{\cfrac{\text{State Equalized Value Per Capita}}{\text{Equalized Value per Capita, Town}_i} \times \text{Population of Town}_i}{\displaystyle\sum_{i=1}^{351}\left(\cfrac{\text{State Equalized Value Per Capita}}{\text{Equalized Value Per Capita, Town}_i} \times \text{Population of Town}_i\right)}$$

Impact of State Aid Programs

State aid to cities and towns has two purposes: to reimburse costs of certain services financed at the state level but provided at local levels and to

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[1]Two other programs have channeled funds to the cities and towns for general municipal expenditures in the past. The machinery distribution, eliminated this year by Chapter 492, as noted above, gave $4 million levels to the cities and towns for general aid. Secondly, the guaranteed local aid program passed in 1969 provided that any excess in that fund after machinery and Chapter 70 distributions should be returned to the localities on the basis of their share of total state equalized value. Returning money to the municipalities on that basis was perverse, giving proportionately more aid to wealthy towns. Because there has been no surplus in the fund, there has been no such distribution since 1971. Since both of these programs distributed aid so badly, the state is better off without them. There is a need, however, for more aid for general municipal expenditures like the lottery fund.

equalize the ability of municipalities with different levels of wealth to provide certain services, such as education. Distribution formulas in Massachusetts have not been very successful in meeting these objectives. As indicated above, the level of state aid in Massachusetts is low compared to most other states, and it is generally not distributed in an equalizing manner. Table 6-2 below provides data on total state aid per capita to municipalities in different wealth brackets.[1] As the table indicates, the amount of aid per capita is not substantially higher for poorer towns than for richer ones. There are several reasons for this pattern. As indicated above, most state aid is categorical and based on a reimbursement of actual expenses basis. Wealthier cities and towns spend more and accordingly are reimbursed more. Also, most state aid that is distributed on an equalizing basis is for education, a function that consumes a smaller share of the total costs of poorer cities than of wealthier municipalities.

Table 6-3 below provides data on the share of total operating budget going to finance selected services for six Massachusetts cities as compared to the remainder of the Commonwealth in 1972. As the table indicates, only 27 percent of Boston's operating budget was used for education in 1972 compared to 55 percent for the state as a whole excluding the large cities. This pattern is true for most of the Commonwealth's other central cities as well. The low share of education in the total costs of the cities reflects their relatively greater needs for noneducation services. These higher costs are a result of some of the economic and demographic characteristics of the older cities. Table 6-4 indicates that Boston, Worcester, and Springfield, for example, all have more

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[1]Municipal wealth as used in this context means relative equalized value per capita.

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Table 6-2

State Aid Per Capita to Municipalities in Different Wealth Classes[1]

	First Quintile Poorest	Second Quintile	Third Quintile	Fourth Quintile	Fifth Quintile Richest
Total Aid Per Capita	145.814	144.936	129.846	112.659	122.880
School Aid Per Capita	115.057	122.681	108.542	93.101	85.562
Nonschool Aid Per Capita	30.757	22.255	21.304	19.558	37.318

[1]Municipalities are divided into quintiles on the basis of equalized assessed value per capita.

Source: 1975 Cherry Sheets; calculations by Research Department, Federal Reserve Bank of Boston.

Table 6-3

Share of Total Revenues Spent on Different Functions for Massachusetts' Six Largest Cities Compared to the Rest of the State
(In Percent)

	Local Education Expenditures	Highways Expenditures	Health & Hospitals Expenditures	Police & Fire Expenditures	Other Local Expenditures
Boston	27	4	13	18	38
Springfield	43	4	5	14	34
Worcester	44	3	14	15	24
Fall River	46	4	6	17	28
Lowell	46	6	2	17	29
New Bedford	44	4	1	20	31
Percent Total for Six Cities	33	4	11	17	35
Percent Total for Rest of State	54	5	4	12	25

Source: U.S. Department of Commerce, Government Finances in 1971-72 and State Government Finances in 1972.

Table 6-4

Some Economic and Social Characteristics of Massachusetts Center Cities
Relative to Surrounding Areas

	Boston SMSA		Worcester SMSA		Springfield SMSA	
	Center City	Entire SMSA	Center City	Entire SMSA	Center City	Entire SMSA
% of Families with Income						
Less than $3,000	10.5	6.1	7.5	5.9	9.1	6.8
More than $15,000	18.1	30.1	20.5	22.8	16.9	21.0
% of Population over 65 years	12.8	11.3	14.7	12.0	12.8	10.9
% of Housing Units Dilapidated	2.3	1.8	5.9	4.6	4.5	4.0
Median Household Income	9,133	11,449	10,038	10,718	9,612	10,369

Source: 1970 Census of Population, Characteristics of Population.

substandard housing and higher shares of low income residents and older people

than the surrounding towns in their SMSA. These factors contribute to higher

costs for health care and hospitals as well as fire and police services and

others.[1] Also, as discussed above, to some extent the central cities' higher

costs are attributable to nonresident workers, shoppers and visitors.

Because of their higher needs for other services, the state's core cities

spend a lower share of their total budget on education. Since education dominates

state aid, the older cities have a lower share of their total costs paid for by

the state than if their expenditure pattern more closely resembled the state

average. Their high expenditure needs and low state aid share continue to drive

up their property tax rates. The 1975 equalized property tax rate for Boston,

Springfield and Worcester will be an average of 88 percent higher than for the

rest of the state.

In order to reduce the heavy dependence on local property taxes by

Massachusetts' municipalities in general and by its older cities in particular,

and to eliminate inequitable disparities in local tax rates, several different

kinds of reforms will have to be considered. Total state aid must be increased

and allocated between school and nonschool functions in a more balanced

proportion than at present. The most critically needed change is additional

equalizing aid for nonschool services, an expanded program modelled after the

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[1]W. B. Neenan, "Suburban-Central City Exploitation Thesis," National Tax
Journal, Vol. 23, No. 2, June 1970. Harvey E. Brazer, City Expenditures in the
United States, National Bureau of Economic Research, Occasional Paper, No. 66,
1959. Woo Sik Kee, "Central City Expenditures and Metropolitan Areas," National
Tax Journal, Vol. 18, December 1967. Advisory Commission on Intergovernmental
Relations, Fiscal Balance in the American Federal System, Vol. 2, Washington,
D.C., October 1967.

existing equalizing municipal grants distribution and supplementing existing special purpose aid. The following two chapters examine various alternatives for revising or expanding state support of public schools and state aid for general municipal services.

Chapter 7

SCHOOL FINANCE REFORM: ALTERNATIVE POSSIBILITIES

Steven J. Weiss

The state government's financial support of public schools has increased markedly in the last ten years, and pressure on the local property tax has been relieved as a result. At the same time there have been some improvements in the design of the school aid system, enhancing its equalizing effects. Nonetheless, large inter-district disparities in school tax rates and spending levels remain, and these inequitable results will persist as long as school expenditures depend largely on the local property tax.

Movement in the direction of equalizing local school spending levels and school tax effort could be achieved by modifying and expanding equalizing aid for schools, or by full state funding of public school costs. These alternative approaches are examined in the second section of this chapter, where it is concluded that neither approach is likely to be feasible or desirable in Massachusetts. However, a "hybrid solution" combining attributes of the two approaches would have much to recommend it. A specific comprehensive school finance reform is developed in this chapter and tested on the basis of estimated data for fiscal year 1975. The plan involves substantial state funding, with allocations to each district geared to a target per pupil spending level and reflecting local differences in both pupil characteristics and past expenditures. Communities would be free to supplement the state allotments on a fully equalized basis.

Fiscal constraints dictate that such a plan would have to be financed partly by a statewide property tax. In order to avoid abrupt changes in local tax rates, a comprehensive reform plan requires transitional constraints or phase-in devices. Compared to the present reimbursement system, a prior-funding plan based on state allocations keyed to a target spending level would improve budgetary control.

Although this chapter focuses on school finance, it is crucial to recognize that no school finance reform can be fully effective unless substantially increased equalizing aid for nonschool spending is provided by the state. Present state aid to localities is extremely heavily biased in favor of school spending; very little nonschool aid is significantly equalizing and only the equalizing municipal grants program (Lottery Distribution) provides general-purpose assistance. Substantially increased nonschool aid, as a means of reducing aggregate reliance on the local property tax and ameliorating inter-community burden differentials, is the single most important requirement for fiscal structure in Massachusetts. School finance reform is desirable in its own right, but it is not the most effective vehicle for accomplishing overall reform objectives. Most of the following discussion treats school finance arrangements as one part of an overall reform package.

The chapter concludes with a brief comparison of current proposals for school finance reform and some concluding comments about the importance of evaluating school finance reform proposals within a broad context of overall fiscal structure reform.

The Present School Finance System in Massachusetts

State aid to local school districts in Massachusetts is intended to promote

quality education for all public school children in the Commonwealth. At the same

time, the state school aid system is designed to compensate for differing levels

of local district wealth or ability to pay for schools (as measured in the Chapter 70

formula by equalized property valuation per pupil) so that property taxpayers in

relatively poor school districts do not have to bear unduly high school tax rates.

The state has made a significant effort in the past decade to improve the

combined state-local school finance system, i.e. to achieve more equitable results

in terms of per pupil spending levels and local tax effort required. First, the

state's financial commitment to public school finance has been increased enormously--

from under $100 million in 1965 to $600 million in fiscal year 1975.[1] Second, the school

aid distribution formulas have been modified specifically to improve their

equalizing effects; most recently, the Chapter 70 school aid percentage, which is

inversely related to school district wealth, has been applied to major categorical

aid programs, as discussed in Chapter 6.

In spite of all good intentions and the gains noted above, the performance

of the school finance system in Massachusetts still compares quite unfavorably

with results achieved in other states,[2] and substantial inter-district disparities

in school spending levels and local school tax rates persist in the Commonwealth.

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[1]The 1965 figure is from Joint Committee on Taxation, State-Local Fiscal
Relations, House No. 7546, May 1973. The FY 1975 figure is from the Cherry Sheet
Estimates, Form CS-1 and Supplement, excluding reimbursement for pensions to
retired teachers and racial imbalance and the assessment for special education
of children in state schools.

[2]Approximately 36 percent of the cost of public schools in Massachusetts will
be financed by the state in fiscal year 1975; for 1972-73, the national average state
share of public school costs was 41 percent (National Education Assoc., Ranking of
the States--1973, Washington, 1973, Table G-8). The equalizing impact of the state's
school finance program was ranked 33rd by the National Educational Finance Project,
Status and Impact of Educational Finance Programs, 1971, p. 137. The latter ranking
was based on data for 1969; while the Massachusetts system has been improved since
then, substantial reforms have occurred in many states that ranked below Massa-
chusetts in 1969.

Local wealth remains as the single most important factor affecting expenditures
for education. There is a consistent positive relationship between equalized
valuation per pupil and expenditures per pupil, and a strong inverse relation-
ship between equalized valuation per pupil and local school tax rates. In general,
relatively high local school tax effort does not produce relatively high spending
levels because local levies still provide twice as much school funding as state
aid and large disparities in local wealth per pupil are not effectively offset by
school aid distributions.[1] The resulting pattern of inequitable results at the
district level has been documented in earlier studies and is illustrated by the
figures in Table 7-1, which reflects funding and formula changes effective in
fiscal year 1975.[2]

Courts in at least nine states have ruled that state systems yielding dis-
parities such as those described above are in violation of the equal protection
clause of the Constitution (or similar language of state constitutions).[3] Even
though a Federal court ruling was overturned in the only case to reach the Supreme
Court so far (Rodriguez v. San Antonio Independent School District), the threat of
legal challenge to state systems has provided a new impetus to school finance
reform. There is no doubt that the system in Massachusetts is vulnerable on the
basis of arguments that have prevailed in earlier state court challenges.[4]

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[1]On the basis of fiscal year 1975 estimates, equalized valuation per pupil is
positively correlated with revenues per pupil (+.60) and negatively correlated with tax
rate (-.41). There is no significant correlation between tax rate and revenues (+.24).
While Chapter 70 is mildly equalizing (correlation of -.31 between equalized valuation
and Chapter 70 per pupil), the total school aid program is not (correlation between
equalized valuation and total aid per pupil = -.08).

[2]A more complete discussion of disparities in Massachusetts based on more
refined statistics is given in Steven J. Weiss, Existing Disparities in Public
School Finance and Proposals for Reform, Research Report No. 46, Federal Reserve
Bank of Boston (February 1970), pp. 12-23. See also John J. Callahan and William
H. Wilken, Education Finance Reform in Massachusetts: Meeting the Constitutional
Demands of Serrano v. Priest, Massachusetts Teachers Association, Boston, 1973, Ch. 2.

[3]The most recent decision was in Connecticut, where a lower state court struck
down Connecticut's school finance system as a violation of state constitutional
provisions dealing with equal protection and education, on December 26, 1974
(Horton v. Meskill).

[4]See Paul R. Dimond, "The Judicial Impact," Financing Public Schools, Federal
Reserve Bank of Boston, Conference Series No. 7 (1972), p. 60; and Steven J. Weiss
and Deborah Driscoll, "Comparative School Finance Data: New England States vs.
California, ibid., pp. 44-59.

Table 7-1

Disparities in Massachusetts Public School Finance,
FY1975 Estimates ($)

	Equalized Valuation Per Pupil (1)	School Tax Rate (2)	Revenue Per Pupil (3)	Ch. 70 Aid Per Pupil (4)	Total School Aid Per Pupil (5)
ealthiest 10 Localities	292,703	4.63	1,622	124	376
0 Localities of Average Wealth	40,516	21.27	1,292	250	424
oorest 10 Localities	19,086	25.09	1,006	354	492

(Figures shown are averages for the three groups.)

otes:

Col. (1) Equalized valuation figures are final 1974 values from the state Dept. of Corporations and Taxation. The extreme value for one town in the wealthiest 10 was dropped in computing the group mean.

Col. (2) School tax rates are estimated by multiplying FY1975 total property tax rates by ratios (for 1973) of school to total property taxes.

Col. (3) Excludes local nontax revenues and Federal grants other than P.L. 874 (aid to federally impacted areas).

Col. (4) From FY1975 cherry sheets, including prior year adjustments and additional funding under Ch. 492.

Col. (5) Includes all school-related items on the FY1975 cherry sheets except reimbursements for pensions to retired teachers and racial imbalance and the special assessment for special education of children in state schools.

In the wake of the court decisions, many state legislatures have enacted
major school finance reform designed to reduce intra-state variation in spending
levels and school tax burdens. The emphasis has been on raising expenditure
levels in relatively poor districts and retaining some local control over school
revenues or expenditures; inevitably, substantial increases in state funding
have been required.[1] Significant reforms will be required in Massachusetts in
order to ameliorate the existing inequities; "with the new dimension of
threatened judicial mandate, perhaps the time has finally come when it is
politically possible to carry out the large scale change which tax equity and
educational equality so obviously demand."[2] A lawsuit challenging the Massa-
chusetts system has been filed in state court.[3]

Alternative Approaches to School Finance Reform

Disparities in school spending levels and school tax burdens could be
reduced or eliminated by two quite different means: (a) improvement and expansion
of existing equalizing school aid programs, and (b) full state funding of public
education. Either of these approaches could pose difficulties if implemented
in "pure" form, but they will be considered briefly here because it appears
likely that a viable, politically acceptable solution to the school finance
problem will combine attributes of both approaches.

(a) Equalizing School Aid, Modified and Expanded. The Chapter 70 formula is
an adaptation of the "percentage equalization" model of aid distribution. In
its pure form, the percentage equalization method offers individual districts

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[1]Joel S. Berke, "Strategies and Tactics for State School Finance Reform,"
Address to the National Symposium on State School Finance Reform, Silver Spring,
Maryland, November 26, 1973.

[2]Robert T. Capeless, "Tax Equity and Educational Equality," in Financing
Public Schools, op. cit., p. 83.

[3]Timilty et al. v. Sargent et al.

a financial incentive and complete control of their own spending levels and at
the same time provides full equalization <u>at</u> <u>any</u> <u>level</u> <u>of</u> <u>spending</u>.[1] The per-
centage equalization model, implemented without constraints, eliminates the wealth factor
as a determinant of district spending levels: the same local tax rate generates
the same per pupil expenditures regardless of disparities in local wealth.

In practice, unfortunately, the model is typically constrained to such an
extent, for budgetary or political reasons, that the promise of equalization is
never realized. Percentage equalization as applied in Massachusetts in Chapter 70
is replete with limitations that destroy its potential effectiveness as an
equalizing formula.[2] There have been many proposals for improving the operation
of the Chapter 70 formula, staying within the context of the percentage equalization
model. Significant changes were proposed in the major 1974 school finance bill,
S. 885. The bill would have made important adjustments in the formula so that
the distribution of school aid would better reflect local differences in ability
to pay, overall tax burden differentials, and pupil needs.[3] The major equalizing
impact of the proposal, however, would come from more than doubling the average
level of state reimbursement from the present 35 percent, in phases, by 1981.

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[1]For a brief description of the percentage equalization model, see Steven
J. Weiss, "The Need for Change in State Public School Finance Systems," <u>New</u>
<u>England Economic Review</u>, January/February 1970, p. 14.

[2]An extensive analysis of the Ch. 70 formula and possible changes to improve
its operation is given in Andre Daniere, <u>Cost-Benefit Analysis of General Purpose</u>
<u>State School-Aid Formulas in Massachusetts</u>, a Report to the Massachusetts Advisory
Council on Education, 1969.

[3]For a detailed justification of the changes proposed in S. 885, see
Callahan and Wilken, <u>op</u>. <u>cit</u>., and Massachusetts Teachers Association, <u>Massa-</u>
<u>chusetts School Finance Primer--Reform, Relief, Redistribution</u>, Boston, 1973.
The bill has been refiled in 1975, with several modifications (S.423; H.2876).

Even with important refinements added, some damaging constraints removed
and a much higher commitment of state funds, the percentage equalization approach
appears doomed to failure, according to one of the country's leading authorities
on school finance:

> ...The point is, percentage equalization in the currently acceptable
> political form--that is, with a ceiling on expenditures so as not to
> give districts a blank check and a minimum grant so as to provide
> everybody with something--leads to a situation which is almost
> guaranteed...[to yield an] inverse relation between tax rates in the
> districts and the levels of their wealth: high tax rates in the poor
> districts and relatively low tax rates in the rich districts.[1]

"District power equalizing," a relatively new concept in school aid
systems, resembles the "pure" percentage equalization model in that it would
completely sever the connection between local wealth and school spending. Under
the power equalizing approach, every district is essentially guaranteed an
equivalent tax capacity; a district's educational spending level is made a
function of its school tax rate alone.[2] The power equalizing plan could be
implemented flexibly to suit the state's objectives. Policymakers could specify
a schedule relating school tax rates and levels of expenditures per pupil. Each
local district would then choose its desired level of spending; if the district's
tax revenues at the required "price" (local tax rate) do not match the correspondi
expenditure amounts on the schedule, the state would make up the difference in
cases of shortfall or require payments in the event of excess local collections.[3]

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[1]Charles S. Benson, "What We Have Already Tried in State-Local Support
Systems," Financing Public Schools, op. cit., p. 103. Note that Chapter 70 contai
provisions for both a ceiling on expenditures and minimum grants, and the Massa-
chusetts Teachers Association bills (see previous footnote) would retain these
provisions.

[2]The original plan is presented in John E. Coons, William H. Clune III and
Stephen D. Sugarman, Private Wealth and Public Education (Cambridge: Harvard
University Press, 1970). A mathematical statement of the plan and a graphical
presentation of various alternatives are presented in Appendix 7-1.

[3]Payments to the state (negative aid) would also be required in most
unconstrained percentage equalization systems.

If a district power equalizing plan were implemented, local districts would be confronted with an entirely new environment of choice. Districts that are rich or poor under the current system could attain the same per pupil spending level by paying the specified local tax rate "price."[1] Local control is maximized, but it is uncertain how districts would react to such a system, and the budgetary requirements could not be forecast with much confidence. Two recent studies have attempted to predict the impact of a power equalizing system in Massachusetts, and both concluded that disparities would be reduced from their present levels. While the relative position of poor children would be improved (even without a correction in the formula for income differences among towns),[2] differences associated with socio-economic status appear likely to persist because of differing tastes for education.[3]

Reform of school finance by expanding or modifying equalizing school aid does not appear to be very promising. Conventional methods seem doomed to failure in practice, and the more novel power equalizing plan raises serious uncertainty as to actual outcomes and budgetary impact. Thus, some observers have concluded that the present system's inequities for school children and

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[1] Flexible adjustments in the plan are possible, _e.g._, to build in strong incentives to "level up" low-spending districts or constrain high spenders, or to "correct" for per capita income differentials, municipal overburden, differing pupil characteristics or local cost differentials. See Coons, Clune and Sugarman, op. cit., Ch. 6; W. Norton Grubb and Stephan Michelson, "Public School Finance in a Post-Serrano World," Harvard Civil Rights--Civil Liberties Law Review, May 1973, pp. 559-66; and Robert D. Reischauer and Robert W. Hartman, Reforming School Finance (Washington: The Brookings Institution, 1973), pp. 84-5.

[2] Grubb and Michelson, op. cit., p. 564.

[3] David Stern, "Effects of Alternative State Aid Formulas on the Distribution of Public School Expenditures in Massachusetts," Review of Economics and Statistics, February 1973, pp. 95-7. Large school expenditure differences may be unacceptable to state policy or the courts even if they do not reflect relative wealth or income advantages.

taxpayers "will not be resolved by state aid. That device has been tried for half a century. Something much more direct and effective is needed."[1]

(b) Full State Funding of public schools is certainly an approach to school finance reform that would eliminate school spending and tax burden inequalities once and for all, for in its pure form this plan would abolish local school taxes and school budgets would either be determined by state allocation or subject to state approval. Full state funding proposals have many distinguished adherents.[2] Whereas pure equalizing approaches to school finance reform would leave a great deal to local choice and permit variations in spending so long as they are not due to wealth differences, full state funding would directly limit spending variations; the impact of full state funding on local control is the prime source of controversy. Proponents argue that meaningful local control need not be tied to local financing:

> In operation, it is conceived that the local education authorities will retain an undiminished role in the establishment of educational policy and the operation of schools. They will adopt courses of study, select and purchase instructional materials, appoint all personnel, determine financial requirements, and in fact perform every function for which they now have responsibility. Budget decisions would, of course, be subject to state guidelines, or fund limitations.[3]

Others have argued that if financial concerns were removed from the local level it would then be possible "to realize the true intent of local control--to allow both parents and school authorities to concern themselves with the real

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[1]Mabel Walker, "Financial Responsibility for Education and Welfare," Tax Policy, April 1969.

[2]James B. Conant, "Full State Funding," Financing Public Schools, op. cit., pp. 111-17.

[3]Paul D. Cooper, "State Takeover of Education Financing," National Tax Journal, September 1971, p. 348.

matters of education and to make decisions on the basis of educational worth."[1]

Full state funding exists only in one state (Hawaii), and among the rest of the states the relative level of state financing varies widely. On the basis of a comparison between local school operations in nearby towns in Maryland and Delaware, where the state funding levels are 30-40 percent and 90 percent, respectively, Cooper concluded that such factors as the statutory powers given to the state and local authorities and the roles assumed by the state authorities "have more to do with the presence of local control than the level of state funding."[2] Cooper's conclusion was confirmed by an Urban Institute study of state control over local school boards in ten states, which found no consistent relationship between the state share of total state-local funding and the degree of restrictions imposed by state statutes and regulations on local district decision-making.[3]

It is most unlikely that full state funding would be politically acceptable in Massachusetts where the tradition of home rule is so deeply ingrained. Yet, because of the direct effectiveness of this approach in eliminating intolerable differentials in spending levels and tax burdens among school districts, a movement in the direction of full state funding would have much to commend it. As an additional gain, for Massachusetts more than for most other states, such movement would offer very essential improvement in the overall state-local tax structure.

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[1] James E. Allen, Jr., quoted in Conant, op. cit., p. 117; see also Advisory Commission on Intergovernmental Relations (ACIR), State Aid to Local Governments, Report A-34, April 1969, p. 15.

[2] Cooper, op. cit., p. 351.

[3] Betsy Levin, Thomas Muller, William J. Scanlon and Michael Cohen, Public School Finance, Present Disparities and Fiscal Alternatives (Washington: The Urban Institute, July 1972), Ch. V.

(c) <u>Hybrid</u> <u>Solutions</u>.

The various approaches to reforming existing school finance
systems are by no means mutually exclusive. Hybrid plans that blend
components of the different approaches are not only possible but
probable.[1]

Recommended "hybrid solutions" to the school finance reform problem are not new.

Five years ago the Advisory Commission on Intergovernmental Relations recommended

a plan to promote equal educational opportunity and to relieve pressures on the

local property tax. The ACIR proposal calls for

assumption by the State of substantially all fiscal responsibility
for financing local schools with opportunity for financial enrich-
ment at the local level and assurance of retention of appropriate
local policymaking authority.[2]

In order to restrict variance in spending levels of local districts, the ACIR

recommended that local supplementation of state funding be limited to a maximum

of 10 percent. The President's Commission on School Finance adopted a similar

recommendation in 1972,[3] and laws to create hybrid systems of this type have

been proposed or enacted in many states (including Maine, where local leeway is

restricted to 7 percent supplementation of state grants).[4]

A high level of state funding by itself does not guarantee reduction of

expenditure differences to levels that are defensible in terms of equity or that

would be tolerable to a court. For example, an Urban Institute study of school

finance in North Carolina, where state funding is at around the 80 percent level,

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[1] Reischauer and Hartman, <u>op</u>. <u>cit</u>., p. 90.

[2] ACIR, <u>State Aid</u>..., <u>op</u>. <u>cit</u>., p. 14.

[3] The President's Commission on School Finance, <u>Schools, People & Money</u>,
Washington (1972), pp. 26-37.

[4] The Maine law became effective on July 1, 1974. As a transitional measure,
local supplementation beyond 7 percent is permitted in order to reach the prior ye
spending levels. A similar plan was defeated this year in Vermont, and a major
reform proposal is on the drawing boards in Rhode Island.

that while affluent suburban districts generally supplement the state's allotments
with local revenues, other districts with a low property tax base use the local
property tax only to a negligible extent.[1] Limitations on local supplementation
of state funds might not be satisfactory either, unless the state provides aid
on a fully equalizing basis to districts levying supplementary local school taxes;[2]
and supplementary school spending cannot be truly equalized unless other state aid
programs are implemented to reduce disparities in non-school tax burdens.

Hybrid School Finance Reform Possibilities for Massachusetts

A reasonable hybrid school reform plan for Massachusetts would combine three
basic features:

(1) A substantially increased level of state support, e.g.,90 percent

or more of combined state and local funding of public schools.

(2) Basic education allotments to local districts, with the amounts

determined on the basis of measurable pupil characteristics, i.e. the

"weighted pupil" method, which would assign more funds, for example,

for a vocational student than for a regular day student.[3]

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[1]Betsy Levin, "Alternatives to the Present System of School Finance: Their
Problems and Prospects," The Georgetown Law Journal, Vol. 61 (1973), p. 909.

[2]If the state provides the full cost of a defensible basic school program
keyed to pupils' needs, it could be argued that any additional spending does not
represent basic education and is therefore not a matter of concern to the state
but rather an extra feature added in accordance with local choice. See Ibid.,
and ACIR, Financing Schools and Property Tax Relief--A State Responsibility,
Report A-40, January 1973, p. 105.

[3]See Richard A. Rossmiller and Thomas H. Moran, "Cost Differentials and
Cost Indices: The Assessment of Variations in Educational Program Costs," in
National Educational Finance Project, School Finance in Transition (1973),
pp. 63-77. Many states use "weighted pupil" adjustments of one kind or another
at some point in their school aid programs, e.g., as an alternative to a straight
pupil count to measure relative fiscal capacity (valuation/pupil). The Massachusetts
Teachers Association bill includes pupil weighting as a device for blowing up reim-
bursable expenditures. The current bill filed by the Massachusetts Board of Education
(H.128) uses a multiple weighting system to determine a "full time equivalent pupil"
count which enters directly into the determination of each district's school aid
allocation.

(3) Full equalization of school taxes raised locally to

supplement the state grants. Some restriction on local

supplementation might be imposed, e.g., leeway constraints

narrowing through time, or limitations on expenditure

growth in high-spending districts.

A reform plan with these characteristics and well designed transitional features

should preserve sufficient local options to be acceptable in the Commonwealth.

It would go a long way toward eliminating present disparities and--of utmost

importance in the overall context of Massachusetts state-local finances--it

would provide immediate and substantial local property tax relief. In terms of

design, this plan would have the advantage of limiting the operation of the

unpredictable "pure" equalization feature to a narrow range. The plan would be

quite in the spirit of reforms in 11 states which significantly modified

their school aid programs in 1972-73; all 11 states included direct

restrictions on per pupil expenditures, through ceilings either on levels or on

rates of growth.[1]

Given the predictably high cost to the state of any plan moving significantly

in the direction discussed here and the overwhelming importance of the local

property tax in the state-local tax structure, it is almost inconceivable that

such a plan could be implemented without adoption of a statewide property tax.

If a statewide property tax levied at a uniform rate on equalized valuation

were tied in as a revenue source for the basic level of state support, it would

[1]W. Norton Grubb, "The First Round of Legislative Reforms in the Post-Serrano World," Law and Contemporary Problems, Winter-Spring 1974, based on a report by the same author, New Programs of State School Aid, National Legislative Conference, Washington, 1974.

A table summarizing salient features of the new legislation in 11 states is presented in Appendix 7-2.

essentially replace <u>local</u> property taxes dollar for dollar, providing some relief

to excessive disparities in present local tax burdens.[1]

Development of a Specific Plan. Projected school spending levels and

school tax rates for every city and town in Massachusetts were examined in order

to estimate the impact of various changes in the state's system of public

school finance. The analysis does not cover categorical school aid programs;

rather, it focuses on "basic" school revenues derived from local property taxes

and Chapter 70 aid. For fiscal year 1975, funding from these sources is estimated at

$1,458.3 million--$1,085.0 million from local property taxes[2] and $373.3 million

from Chapter 70 (state funds). This total implies a state average spending level

of almost $1,200 per pupil, or $1,100 per "weighted pupil."[3] Spending levels

of individual districts vary widely around these averages, of course, as do the

local school tax rates required to support them.

A straightforward way to completely eliminate disparities in local school

spending and tax rates would be for the state to allocate school funds on a per-

pupil basis, supplementing existing funds to pay for this program by levying a

uniform statewide property tax. The results of such a program would be very

disruptive and clearly unacceptable: tax rates would rise sharply in some towns;

[1]See Capeless, <u>op</u>. <u>cit</u>., pp. 83-5.

[2]The $1,085.0 million figure is derived by applying 1973 ratios of school to total tax rates for every city and town to levies for fiscal year 1975.

[3]Estimates of the number of pupils residing in each city and town are based on data available for 1973 (public school attending children). Numbers of "weighted pupils" were estimated from Department of Education data incorporating weighting factors for three vocational education categories, three special education categories, and bilingual education. Since the "weighted pupil" data were available only on an operating school district basis, the numbers were allocated back to city or town of residence on the basis of 1973 enrollment patterns. Data based on 1973 counts were inflated to estimated 1975 levels on the basis of pro- jections in "Massachusetts School Enrollment Projections, 1973-80," Massachusetts Department of Education, n.d., Table VI.

many districts' spending levels would be cut drastically; low-spending districts would receive windfalls in increased funds that could hardly be absorbed into effective new programs; and the scope of local decision-making would be severely limited. School tax rates and spending levels vary so widely in Massachusetts that any comprehensive reform plan must incorporate effective transitional provisions in order to cushion large tax rate changes or expenditure cuts that would otherwise result from an unconstrained reform plan. For example, a 10 percent local leeway restriction would still force sharp cutbacks on the part of many districts. Furthermore, even if local supplementation were unconstrained (so that high-spending districts could maintain current expenditure levels), many towns would experience substantial tax rate changes which could cause large windfall gains and losses in real estate values.

After considerable experimentation with allocation plans incorporating different types of transitional "cushions," a compromise approach was developed. The plan has the following characteristics:

1. A target per-pupil spending level is set by the state, as the basis for allocations to individual districts. (The target level is set at $1,000 per "weighted pupil.")

2. Districts with spending levels below the target amount receive per-pupil grants making up half the difference; similarly, half the difference between the target amount and expenditure levels of high-spending districts would be made up by supplementary grants. Thus, per-pupil allocations vary across districts.

3. Districts are permitted to supplement the state allocations through local property taxes, on a fully equalized basis, with the state paying half the supplementary cost for a district of average wealth.

4. Financing for the program comes from a statewide property tax plus additional state nonproperty tax sources (supplementing the amount presently dedicated to Chapter 70.

5. A "save harmless" fund is included to cushion tax increases in individual cities and towns. As noted above, the plan does not include any changes in funding or administrative

arrangements with regard to the various categorical school
aid programs.

Using projected data for fiscal year 1975, this plan was simulated assuming two

different levels of statewide property tax financing: statewide tax rates

initially set to yield $1 billion and $800 million, respectively. In the first

case, total property taxes for school financing are reduced by about $94 million and

no local government's school tax rate goes up more than $2 per thousand; in the

second case, property taxes decrease by around $274 million and no city or town

experiences any increase in its total school tax rate (statewide rate plus local

rate for supplementation). Summary results for the simulations are presented

in Table 7-2. (The simulation technique is described in Appendix 7-3, and

results for individual cities and towns are shown in Appendix 7-4.)

Table 7-2 and Appendix 7-4 show the hypothetical results of the plans in

their first year of operation--as if they had been introduced in fiscal year 1975. The

transitional cushions have important effects in the first year. The "save harm-

less" provision prevents any sharp tax rate increases. In fact, the cities and

towns protected by this provision presently enjoy school tax rates that are

consistently below the state average. Therefore, it would not appear unreasonable

to relax the "save harmless" provision over a period of several years; by doing

so, the state would shift part of its financing from state funds to the uniform

statewide property tax and to fully equalized local taxes for supplementary

spending.[1] Expenditures in present low-spending districts would be increased

each year, moving gradually toward the state target spending level. Current

high-spending districts would receive above average grants, thereby reducing

the amounts required from local supplementation in order to maintain their

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[1]Although an unconstrained plan requires payment of negative aid to the
state by some wealthy districts, this politically sensitive result is precluded
in fact by the "save harmless" provision.

Table 7-2

Aggregate Results of Allocation-Type School
Finance Plans Including Statewide Property Tax[1]
($ Amounts in millions)

	(A) Statewide Property Tax Set to Yield $1 billion		(B) Statewide Property Tax Set to Yield $800 million	
	Unconstrained	Save Harmless[2]	Unconstrained	Save Harmless
Statewide Rate (mills)	18.27	18.27	14.62	14.62
Statewide Property Tax Collections	$1,000.0	$ 946.6	$ 800.0	$ 762.3
Local Property Tax Supplementation	60.8	44.3	60.8	48.9
Total Property Tax	$1,060.8	$ 990.9	$ 860.8	$ 811.2
Basic Program Cost	$1,389.6	$1,389.6	$1,389.6	$1,389.6
Net Equalizing Aid	28.4	34.8	28.4	34.8
Supplementary Aid	---	10.1	---	5.4
Cost to State	$1,418.1	$1,434.6	$1,418.1	$1,429.9
Less: Chapter 70 Budget plus Statewide Property Tax Collections	$1,373.3	$1,319.9	$1,173.3	$1,135.6
Additional State Funds Required	$ 44.7	$ 114.6	$ 244.7	$ 294.4

[1]The derivation of these results is explained in Appendix 7-3.
[2]Local school tax rates increase no more than $2 per thousand.
[3]No local school tax rates increase.

Note: Details may not add to totals because of rounding.

spending levels.[1] It may be desirable to place some indirect restraints on
expenditures of high-spending districts over time, e.g. by freezing district
allocations per pupil in excess of the target amount at their initial level, or
by setting some maximum annual growth percentage.

Other Possible Approaches. Short of moving to an allocation-type school
finance system incorporating a statewide property tax for schools, other more
modest approaches might be considered. For example, in recent years the level
of funding of Chapter 70 has been increased, and it could be increased further. For
illustrative purposes, the impact on local school tax rates of increasing Chapter 70
by an extra $200 million[2] in fiscal year 1975 is shown in Appendix 7-4. Alternatively,
the state could assume full financial responsibility for certain categorical aid
programs. Some obvious candidates, which have been considered for state take-
over in the past or which have actually been taken over in other states, are
school transportation, construction, and vocational and special education.
Either of these alternative approaches would serve to reduce local property tax
loads, but neither would offer the broader gains in tax rate and expenditure
equalization of the more comprehensive reform described above.

Summary Comparison of Current School Finance Proposals

Three major school finance reform bills have been filed in the Massachusetts
Legislature in 1975, identified as follows:

1. Massachusetts Board of Education (H.128);
2. "Boston Coalition" (H.3628);
3. Massachusetts Teachers Association (MTA)(H.2876, S.423).

In this section, salient characteristics of these three bills will be

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[1]This feature of the plan represents, in effect, a "save harmless" feature
on the expenditure side.

[2]The figures assume no change in the Chapter 70 formula.

compared along with the plans developed in this chapter (identified below as the "Boston Fed plans").[1] This brief comparison emphasizes the fiscal impacts of the different plans, including their impacts on local property tax burdens.

A. General Approach. The MTA bill, in terms of design, represents the least change from the present system. The bill would modify the Chapter 70 formula in several significant ways and it calls for a large increase in state support; but the basic approach of Chapter 70, i.e., a reimbursement system, is retained. In contrast, the Board of Education, Coalition and Boston Fed plans all incorporate a basic shift from a reimbursement system to prior funding keyed to a target spending level (an "allocation-type" approach), and they offer expenditure control advantages, discussed below. The Coalition bill differs from the Board of Education and Boston Fed plans in that it does not provide equalizing aid for local spending beyond the target level. The Boston Fed plan is different in that it incorporates a variable basic grant level designed to adjust for differences in previous spending levels.

B. Coverage. The Board of Education and Coalition plans both extend in scope to cover major categorical school aid programs (Bilingual Education, Chapter 71A; Special Education, Chapter 71B; and Vocational Education, Chapter 74) in addition to general aid under Chapter 70. The MTA and Boston Fed plans, in contrast, do not embrace these categorical programs directly; however, the special needs that are the subject of these categorical programs are reflected indirectly by the use of "weighted pupil" counts.

C. Measure of Local Fiscal Capacity. All of the plans introduce new measures of relative local fiscal capacity, representing changes from the current Chapter 70 focus on equalized valuation per school attending child. The new measures are as follows:

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[1] These plans do not reflect any official position of the Federal Reserve Bank of Boston.

(1) Coalition--weighted combination of equalized valuation per capita and income per capita;

(2) MTA--weighted combination of equalized valuation per capita and relative total local tax effort;

(3) Board of Education--equalized valuation per capita;

(4) Boston Fed--equalized valuation per weighted pupil.

The Boston Fed measure represents the least significant departure from the current practice. The other plans apparently introduce changes in the measure of relative fiscal capacity at least partly as a means of adjusting, directly or indirectly, for differences in local nonschool spending needs. No such adjustment is attempted in the Boston Fed plan since it is put forth as one possible component of general fiscal structure reform which would address equalization of nonschool tax burdens directly.

D. Estimated Cost (New State Funds Required). Estimates of the different plans' costs in terms of new state funds are presented in Table 7-3. The figures represent estimated net costs of the programs in the initial year of operation.

For the Board of Education and Coalition plans, the total cost figure represents total cost net of anticipated budget amounts for Chapter 70 and the categorical programs covered. The Boston Fed total cost figures are net of fiscal year 1975 Cherry Sheet totals for Chapter 70 and estimated statewide property tax yields.

E. Local Tax Reduction. Estimates of total local property tax reduction are available for some of the plans. Under the foundation part of the Board of Education plan, up to $85 million could be used to reduce local property taxes;[1]

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[1] Massachusetts Board of Education, School Finance Reform Legislation, 1975, p. 11. A roughly comparable amount of local tax relief is likely to arise under the Coalition plan.

Table 7-3

Estimated Initial Year Cost (New State Funds Required) of
Alternative School Finance Reform Plans[1]
(millions)

	Basic Program	Equalizing Aid for Supplementation	Save Harmless	Total
Board of Education	$146	$34	$10	$190
Coalition[2]	$146	none	$10	$156
Boston Fed[3]				
(A)	$ 10	$35	$70	$115
(B)	$209	$35	$50	$294
MTA[4]	$239	--	--	$239

[1]From Massachusetts Board of Education, School Finance Reform Legislation; Equity and Relief, 1975, p. 11.

[2]Assumes cost of foundation program and save harmless are the same as in the Board of Education plan in the aggregate, even though the distribution of aid would be different since a different measure of relative local fiscal capacity is used.

[3]Figures derived from Table 7-2. The save harmless cost includes loss of statewide property tax yield, elimination of negative equalizing aid and supplementary (non-equalizing) aid to maintain local spending levels. The extra cost of Plan B is matched by a corresponding amount of additional local property tax relief.

[4]In John J. Callahan, William H. Wilken and Donald Phares, Massachusetts School Finance Primer: The Three R's (Boston: MTS, 1973), p. 11, the total fiscal year cost of the MTA's 1974 legislative package including school finance reform and a property tax "circuit breaker" was estimated to be $330 million of which $215 million apparently represents the cost of the school program. Inflating this figure by 11 percent to reflect the increase in average support level from 45 percent to 50 percent in the 1975 bill yields the estimate of $239 million. Actual costs would be higher than this amount, however, since the 1975 bill increases some pupil weights and adds new ones, but the cost impact of these changes is unknown.

in addition, the $34 million cost of the guaranteed yield provisions would further

reduce local taxes. As noted earlier, Boston Fed plans A and B would reduce total

property tax financing for schools by $94 million and $274 million, respectively;[1]

statewide plus local supplementary school taxes would be less by these amounts

than local school taxes projected for fiscal year 1975. (It has not been possible to

derive any estimate of the aggregate property tax reduction impact of the 1975

MTA school finance bill.)

The distribution of local tax reduction is an important point where the

plans differ significantly. Table 7-4 contains some estimates of school tax

reductions for a sample of poor, wealthy and "average wealth" cities and towns.

The available estimates[2] show that all the plans are equalizing to the extent

that they give greater relief to poorer districts. There are significant

differences, however, in the different plans' impacts on the wealthiest

communities, reflecting the various save harmless provisions. The Board of

Education plan and Boston Fed plan B give no relief to the wealthiest districts

(whose present school rates are extraordinarily low), and Boston Fed plan B

permits some rate increases.[3] The MTA plan provides some property tax reduction

for all but a handful of the wealthiest communities.

The Fiscal Context of School Finance Reform

In current state legislative parlance the term "tax reform" has become

"virtually synonymous with property tax reduction."[4] Many states have moved

in the last few years to cut local property taxes by increasing state aid or

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[1]The only difference between plans A and B is the extent to which they
rely on statewide property taxes for financing.

[2]It must be emphasized that these estimates represent rather heroic statistical
attempts to present limited information from various sources on a reasonably con-
sistent basis; the results represent best efforts but should not be considered
definitive.

[3]The percentage change shown in Table 7-4 for the 10 wealthiest districts is +54
percent, which may seem high in percentage terms; however, this represents rate increases
of only $2/thousand, at most, and the high percentage increase therefore reflects the
very low initial rates.

[4]Leon Rothenberg, "A New Look in State Finances: Tax Reduction and Restructured
Tax Systems," National Tax Journal, Vol. XXVII, No. 2 (June 1974), p. 178.

Table 7-4

Estimated Impact on School Tax Rates
of Alternative School Finance Plans[1]

	Poorest 10 Localities	10 Localities of Average Wealth	Wealthiest 10 Localities
Estimated 1975 School Tax Rate	25.09	21.27	4.63
Percentage Change in Rate under:			
(1) Board of Education plan[2]	-26%	-20%	0
(2) Boston Fed plan (A)[3]	-23%	- 9%	+54%
(3) Boston Fed plan (B)[3]	-37%	-25%	0
(4) MTA plan[4]	-53%	-20%	-8%

(Figures shown are averages for the three groups.)

[1]No estimates are available for the Coalition plan.
[2]Estimated from data supplied by the Department of Education.
[3]School tax rates under the Boston Fed plans include both statewide and local supplement components.
[4]Estimates based on "Projected Tax Reductions for 1975 and 1981," MTA release in support of 1974 bill (S.885).

assuming financial responsibility for functions assigned to local government.
Massachusetts has made some progress in this direction, but mostly on a piecemeal
basis, and more dramatic action is now required in order to achieve significant
and lasting change.

All the school finance plans discussed above would reduce local property
taxes and thereby contribute to general reform. The Board of Education and
Boston Fed plans would go farthest in reducing inter-community tax burden dis-
parities. However, none of the plans addresses the problem of overall tax
reform in a comprehensive manner. In order to do so, it is necessary to deal
with local nonschool spending requirements, which consume over half of local
property tax levies. The following comments represent major conclusions about
school finance reform in the broader context of overall fiscal structure reform.

(1) As long as large disparities in local nonschool tax rates persist,
the effective operation of even an ideal school aid program would be frustrated.
The best solution is to approach the problem directly--via a program of nonschool
aid--rather than attempting to compensate high-tax jurisdictions through adjust-
ments in the school aid program. As mentioned earlier, such indirect adjustments
are incorporated into all but the Boston Fed plans, which have been designed as
possible components of an overall fiscal structure reform package including
general-purpose equalizing aid as its first priority.[1]

(2) New state funds simply will not be available in the near future to finance
comprehensive school finance reform from nonproperty tax sources. The Boston Fed
plans, although comprehensive in scope, are financed largely through property taxes
collected statewide on an equalized basis.[2] The Board of Education plan is similar

[1]A bill calling for a substantially enlarged general-purpose equalizing
aid program has recently been introduced by the Massachusetts League of Cities and
Towns.
[2]This does not imply state administration and collection; equalized assessments
on the cities and towns could be raised as a Cherry Sheet item.

in an important respect: because of its required local effort provision especially, and also because of the mechanics of the guaranteed yield provision,[1] a substantial portion of the total school costs would be financed from fully equalized property taxation. The MTA plan would require substantial increases in new state funding beyond the initial year, and it is not clear how the money could be raised.

(3) Shifting from the current system to an allocation-type plan with prior funding (such as the Board of Education, Coalition and Boston Fed plans) would represent a significant reorientation of the state school finance system   In the short run, transitional features can minimize disruptive effects of moving to a new system. The allocation approach offers important expenditure control advantages as compared to the present reimbursement system. The target grant level can be established as an explicit item of state policy, and the system can work primarily to support spending levels around the designated target amount. At the same time, the state can gain greater control over amounts payable to higher-spending, wealthy districts. Under the present system there is a largely open-ended incentive for school committees to increase expenditures. The state reimburses essentially the same percentage of costs regardless of how fast they grow. The allocation approach, on the other hand, sets an objective target expenditure level that the state can control. In the present state budgetary environment, these advantages appear very significant.

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[1]See School Finance Reform Legislation, op. cit., pp. 7-9, for description of these provisions.

Chapter 8

INCREASED STATE AID FOR GENERAL MUNICIPAL PURPOSES

Richard F. Syron

If dependence on local property taxes is to be reduced to a reasonable level, reforming school aid alone will not be sufficient. In fiscal year 1975 more than three-quarters of all state aid will go to education even though nonschool expenses account for more than half of municipal costs. The high share of state aid for schools reflects the belief that education is a merit good and as such should not be dependent on local property wealth. While this is true, many other public services such as police and fire protection and sanitation are also merit goods. There is also substantial variation in the importance of nonschool costs in local budgets. As Table 6-3 indicated, functions other than education consume a much greater share of the total budget of our older cities than is true for the rest of the state. These older cities are also among the municipalities with the least property wealth per capita, leaving them in poor position to meet these higher costs. In order to help eliminate these imbalances state aid should be allocated to the cities and towns on a basis more closely reflecting their cost structure. This increased aid for noneducational functions should also be distributed on an equalizing basis, giving more help to local governments that need it most.

Several different approaches could be used to increase nonschool aid to the cities and towns. This section discusses the advantages and disadvantages of several of these alternatives and, for illustrative purposes, indicates their effect on local tax rates. Chapters 10 to 13 below indicate how the revenue for this additional state aid might be raised. In part IV we combine this information

and examines what some of the alternative approaches to reform are.

Massachusetts now has over 20 different programs for nonschool local aid. As described above many of these programs are categorical, reimbursing cities and towns for expenditures for particular purposes. Many also work on a fixed matching basis, giving so many state dollars for each local dollar spent. Although this approach to aid can be advantageous when the state wants to stimulate spending on particular functions, it also has serious drawbacks.

Matching aid encourages cities and towns to switch their expenditures away from programs that are not reimbursed to aided functions in order to capture the maximum amount of state aid. Services may be purchased even when there is no pressing need for them under the rationale that the state is paying 50 percent or 75 percent of the cost. As a result, cities and towns may end up providing their citizens with a package of services that is entirely different from what they would choose if there were no constraints.[1] Categorical grants also lock cities and towns into expenditures for particular functions even though circumstances and needs may have changed since the time the state initiated the programs. To the extent that the state reimburses the localities for past expenses, poorer municipalit that have difficulty financing costs during the lag period are penalized. With the exception of some highway aid and the lottery fund, no attempt is now made to distribute nonschool aid on an equalizing basis. Table 6-2 indicates that present local aid distribution gives almost the same amount to wealthy cities and towns as to poor ones.

Present state aid programs for functions other than education are the result of intricate negotiations and protracted political battles. Some of the

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[1]Mushkin, Selma J. and Cotton, John F., Sharing Funds for State and Local Needs (New York: Praeger, 1969), and Heller, Walter W. and Pechman, Joseph A., Questions and Answers on Revenue Sharing, the Brookings Institute, Washington, D.C., 1967 Joint Economic Committee, Federal Sharing and its Alternatives, July 1967.

the most glaring inequities were eliminated by last year's aid reform package, Chapter 492. Accordingly a reasonable approach to reform may be to leave the existing nonschool aid programs intact and to add new local aid programs. A revised total state aid program should mesh with present state aid for nonschool functions in such a way that the combined impact is to distribute aid commensurate with need. Funds distributed through a new program for general municipal aid would be noncategorical grants and would most likely be directed toward reducing property taxes.

Distribution Formulas

It may be reasonably easy to reach agreement on the overall concept of reducing local property taxes through increased state aid. The stumbling block to reform is more likely to be a controversy over how to distribute this aid to individual cities and towns. Because of the differences in local cost burdens described above, distributing increased aid on a straight per capita basis is not likely to be satisfactory. This approach would lower overall dependence on property taxes but would still leave a wide variation in individual rates, and the distortions produced by such disparities would persist.[1] If this distortion is to be reduced consideration must be given to distributing block grants for general municipal aid on a strongly equalizing basis. This approach is called equalizing municipal grants or EMGs.

Equalizing Municipal Grants

The purpose of an EMG program is to equalize the ability of cities and towns with varying revenue bases to finance different cost burdens. A great deal of empirical work has been done attempting to identify the factors contributing to

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[1]See Chapter 4.

intermunicipal cost differences in order to use them as part of aid distribution formulas. However, for the most part these attempts have resulted in ambiguous results. One reason for this ambiguity is that high spending on a function may have entirely different causes in different places. One municipality may spend a lot because its residents demand high quality service and can afford them while another may have to spend just as much to provide minimal services.[1] For example, an older city may have high per capita costs for basic fire protection while an equal amount spent by a suburban community may finance higher quality services.

Given the lack of success to date in identifying precisely the factors accounting for variations in intermunicipal cost levels, attempting to develop complicated multi-factor distribution formulas for municipal aid would be a vain pursuit. Such formulas are difficult to justify and almost impossible to sell politically. A simple approach for distributing block grants, using generally agreed upon measures of need and ability to meet costs has much to commend it.

Distribution Formula Factors

Two types of measures might be incorporated into EMG formulas: those reflecting ability to pay and those reflecting need. We have examined both the advantages and disadvantages to each type of approach.

Measures of ability to pay

Equalized property wealth per capita and per capita income are two generally accepted measures of ability to pay. Equalized valuation per capita reflects the property tax base that a locality can tap directly. One limitation of this measure is that it reflects ability to pay from the property side alone.

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[1]Mushkin and Cotton, op. cit., pp. 184-203.

A municipality might have high equalized value per capita because it has a lot of commercial property even though many of its residents have low incomes. Per capita personal income gets around this but is subject to its own limitations. Since personal income data are for the residents of a town only, resort areas with a great deal of seasonal property would appear poorer than they really are. Per capita income also fails to reflect the wealth of individuals supported by trusts and inheritances. Both measures reflect only the ability to pay side of the fiscal coin and do not adjust for cost differences. Two towns with the same amount of per capita equalized value may have radically different costs.

Measures of need or cost

Equalized tax rates indicate how intensively communities are utilizing their property tax base to raise revenues, i.e., they are a rough measure of tax effort. On the assumption that localities have higher rates because they have higher costs, equalized tax rates also give some indication of cost differences. However, towns with the same equalized rate may provide entirely different service levels with one just getting by while the other is providing luxuries. Also, while equalized rates measure how much a municipality charges to raise local property tax revenues, they do not reflect the ability of the residents of the locality to meet that charge. One way around this limitation is to use property taxes as a share of a locality's personal income as a measure of "tax effort." Since the purpose of EMGs is to increase aid for functions other than education, the appropriate "tax effort" measure is nonschool levy as a percentage of income. This measure gets around the difference in ability to pay problem but is still subject to the other distortions of tax effort measures. A major concern with tax effort formulas is they may encourage higher spending since a locality's share of aid increases when their levy or taxes increase.

Alternative EMG Formulas

While these indicators reflect different economic characteristics of
localities, it may well be that they would have the same effect if incorporated
into an EMG formula. There is some correlation between how much people pay for
housing, one component of equalized value, and personal income. There is some
controversy over whether there is any relationship between tax rates and equalized
values.[1]

To provide some indication of the merits of formulas incorporating the
different indicators of need and ability to pay, we simulated the effect on
Massachusetts cities and towns of several alternative distribution schemes.
Aid was distributed on the basis of four formulas we developed as well as the
equalized valuation formula presently used for distributing the lottery and Federal
revenue sharing formulas. The formulas are listed from 1 to 6 and described below.

Formula 1

The Equalized Valuation Formula (Lottery Formula)

$$\text{Town}_i \text{ Share} = \frac{\frac{S.E.V._c}{T._iE.V._c} \times P_i}{A}$$

where $S.E.V._c$ = statewide equalized value per capita
$T._iE.V._c$ = town$_i$ equalized value per capita
P_i = population of town$_i$
A = the sum of the numerators

Formula 2

Personal Income Formula

$$\text{Town}_i \text{ Share} = \frac{\frac{Yc_s}{Yc_i} \times P_i}{B}$$

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[1] Andre Daniere, Cost Benefit Analysis of General Purpose State School-Aid
Formulas in Massachusetts, a report to the Massachusetts Advisory Council on
Education and John H. Callahan and William H. Wilken, Educational Finance Reform
in Massachusetts, Massachusetts Teachers Association, January, 1973.

where Yc_s = income per capita town statewide
      Yc_i = income per capita town$_i$
      P_i = population of town$_i$
      B = the sum of the numerators

Formula 3

Combination of Personal Income and Equalized Value Per Capita

$$\text{Town}_i \text{ Share} = .5 \frac{\frac{S.E.V._c}{T._iE.V._c} \times P_i}{A} + .5 \frac{\frac{Yc_s}{Yc_i} \times P_i}{B}$$

Formula 4

Nonschool Levy as Percent of Income

$$\text{Town}_i \text{ Share} = \frac{\frac{N.S.L._i}{Y_i} \times P_i}{C}$$

where $N.S.L._i$ = nonschool levy town$_i$
       Y_i = personal income town$_i$
       C = the sum of the numerators

Formula 5

Combination of Nonschool Levy as a Percent of Income and Equalized
    Valuation Per Capita

$$\text{Town}_i \text{ Share} = .5 \frac{\frac{S.E.V._c}{T._iE.V._c} \times P_i}{A} + .5 \frac{\frac{N.S.L._i}{Y_i} \times P_i}{C}$$

Formula 6

Federal Revenue Sharing Formula

$$\text{Town}_i \text{ Share} = \frac{\frac{Yc_s}{Yc_i} \times \frac{N.S.L._i}{Y_i} \times P_i}{D}$$

where D = the sum of the numerators.

All of the formulas begin with population as a basic measure of need. Formulas 1
2 and 3 weigh population for ability to pay as measured by property wealth or per
capita income. Formula 4 weighs population by "nonschool tax effort." Since the
objective of increased aid through EMGs is to reduce dependence on property taxes for
general municipal services nonschool levy as a share of income is the appropriate
measure of "tax effort." Formulas 5 and 6 adjust for both ability to pay and
"tax effort."

Formulas considering need and cost have advantages. Since they adjust for both
a locality's ability to pay and its costs, they are less subject to distortion than
a single factor formula and are also more comprehensive. Both Formulas 5 and 6 measur
need by nonschool tax effort. However, they differ in how they adjust for ability
to pay. Formula 5 uses property wealth as an indicator of ability to pay while
the Federal revenue sharing formula (6) uses per capita income. Property wealth may
be a more relevant indicator of ability to pay if the purpose of the EMG program is
to reduce property taxes. However, this conceptual advantage may be offset by
deficiencies in the equalized valuation data.

Assuming the distribution of $250 million to the 351 cities and towns on the
basis of each formula, Appendix 8-1A and 8-1B show the effect of such distributions
on each town's nonschool tax rate. The distributions were constrained so that no aid
was given to a municipality once its nonschool tax rate dropped below one-fourth
the statewide average. For purposes of comparison we also examined the effect of
distributing the same amount of aid on a straight per capita basis or of distributing
only $100 million by formula and using the remaining $150 million for the takeover
of the state assessments described in Chapter 6.[1]

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[1]The total cost of removing the assessment for county costs, county hospitals,
recreation areas and other state apportionment assessments is $147 million. For this
package $100 million distributed through Formula 5 was added to the $147 million. Onl
the formula distribution was constrained to the one-fourth state average criteria.

Table 8-1 provides some summary statistics on the effect of these distribution

schemes. Unfortunately there are conceptual and statistical problems in attempting

to test the impact of distribution formulas. The criterion used to measure effect

is likely to be closely related to the factors used in the formula. One approach is

to examine the effect the different formulas have in equalizing the ability of

municipalities in different wealth classes to meet needs. In order to do this, towns

are classified as rich or poor according to equalized value per capita or some other

indicator. However, the formulas we are testing either incorporate equalized value or

measures closely related to it. This problem is inherent in any attempt to analyze

the impact of equalizing formulas.[1]

Our approach has been to examine how much the different formulas do to reduce

the variation in total and nonschool rates. We have also divided the 351 towns into

quintiles according to property wealth per capita and examined the amount of aid per

capita that the alternative formulas would generate as well as the impact on total

and nonschool tax rates in each quintile. Table 8-1 indicates that the equalized

value formula, the Federal revenue sharing formula and the combination formula,

number 5, are the most "powerful" in terms of channeling aid to poorer municipalities.

These formulas also do the most to reduce the standard deviation of total and nonschool

tax rates.[2] While the package containing a reduction in state assessments plus

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[1]There are also problems with the equalized valuation data. Even though they are
updated every two years, equalized valuations do not give a completely accurate picture
of relative property wealth. Equalized value determinations are the subject of many
lawsuits and sometimes end up as compromise settlements. However, these data may be
substantially improved in the future as a result of the "Sudbury Suit" requiring 100
percent assessment of all real property.

[2]While the coefficient of variation of the total tax rate decreases in every case,
it goes up for the nonschool rate since the mean decreases faster than the variance.
As between the different formulas, the coefficient of variation is lowest for the lottery,
Federal revenue sharing and combination formulas.

Table 8-1

Impact of Different EMG Formulas

Formula[1]	Aid Per Capita to Towns in Quintile					Percent Change in Total Tax Rate to Towns in Quintile					Percent Change in Nonschool Tax Rate to Towns in Quintile				
	1 (Poorest)	2	3	4	5 (Richest)	1 (Poorest)	2	3	4	5 (Richest)	1 (Poorest)	2	3	4	5 (Richest)
(1) Equalized Valuation	$63.36	$37.97	$31.42	$26.24	$13.91	17.01%	10.72%	8.14%	5.33%	2.12%	35.38%	26.29%	21.70%	14.02%	4.86%
(2) Personal Income	49.60	45.19	42.65	36.52	41.26	15.97	13.12	10.91	7.99	6.52	33.21	32.16	29.08	21.03	14.95
(3) .5 Equal. Val. & .5 Pers. Income	56.47	41.57	37.05	31.32	27.94	16.50	12.01	9.55	6.66	4.34	34.32	29.46	25.45	17.54	9.96
(4) Nonschool Levy as Percent of Income	54.31	39.71	33.62	35.16	51.96	10.82	8.68	7.56	6.50	8.97	22.50	21.29	20.17	17.11	20.66
(5) Combination Formula— .5 Equal. Val. & .5 Nonschool Levy as Percent of Income	58.84	38.81	32.48	30.64	33.34	14.29	9.81	7.88	5.91	5.78	29.73	24.04	21.00	15.57	13.32
(6) Federal Revenue Sharing	53.08	42.18	37.59	34.19	44.86	13.55	10.72	9.01	6.65	6.07	28.18	26.30	24.01	17.51	13.92
(7) Straight Per Capita	45.40	45.33	44.34	45.29	43.31	14.64	12.62	11.01	9.03	6.15	30.45	30.94	29.34	23.78	14.10
(8) State Takeover of County & Other Costs plus $100 Million Distributed by Formula 5	47.93	38.60	39.52	46.38	60.41	12.32	10.57	9.96	9.24	11.42	25.62	25.93	26.49	24.32	26.08

[1]See text for description of each formula.

Source: Calculations by Research Department, Federal Reserve Bank of Boston.

Table 8-1 (cont'd)

Impact of Different EMG Formulas

Formula[1]	Standard Deviation		Coefficient of Variation	
	Total Tax Rate	Nonschool Tax Rate	Total Tax Rate	Nonschool Tax Rate
(1) Equalized Valuation	12.6159	8.2326	0.4377	0.8010
(2) Personal Income	12.9301	8.6597	0.4582	0.8949
(3) .5 Equal. Val. & .5 Pers. Income	12.7702	8.4401	0.4479	0.8468
(4) Nonschool Levy as Percent of Income	10.6651	7.3016	0.3707	0.6983
(5) Combination Formula – .5 Equal. Val. & .5 Nonschool Levy as Percent of Income	10.4809	7.3794	0.3672	0.7215
(6) Federal Revenue Sharing	12.7583	8.2370	0.4429	0.8025
(7) Straight Per Capita	12.9729	8.7130	0.4582	0.8921
(8) State Takeover of County & Other Costs plus $100 Million distributed by Formula 5	11.0668	8.0647	0.3938	0.8234

[1]See text for description of each formula.

Source: Calculations by Research Department, Federal Reserve Bank of Boston.

$100 million of formula-distributed aid reduces overall property tax dependence, it does relatively little to reduce the variation in property taxes. The primary reason for this is that the charges which would be eliminated are based upon valuation. Accordingly, wealthy towns benefit more from removing these charges than they would from the same amount of money distributed through an EMG formula.

The equalized value formula, the Federal revenue sharing formula and Formula 5, which is essentially a combination of parts of both of them, are all reasonable approaches to distributing increased aid for general municipal purposes. All have sound conceptual foundations and seem to work reasonably well in practice. While these formulas have the same general impact, distributing the greatest share of aid to poorer communities, the town-to-town impact varies significantly between them. Because there are no firm objective criteria for measuring which formula is "optimum," it seems certain that their impact on different towns will be an important political factor in determining which if any is used. This is the reason we have shown the impact of all of the formulas on each of Massachusetts' 351 cities and towns. Because Formula 5 is a compromise between the two most widely advocated formulas, we have used it in our sample plans below.

Chapter 9

POSSIBLE REDUCTIONS IN STATE ASSESSMENTS ON CITIES AND TOWNS

Richard F. Syron

In 1975 the Commonwealth will charge local governments $231 million for

services provided by the state government various agencies, and county govern-

ment.   These charges are assessed through 25 different programs, of which some

are reasonable and some are not.   Elimination of some of the latter would be a

reasonable complement to increased state aid to reduce local property taxes.[1]

State assessment of cities and towns has long been a politically popular

way of raising state revenues.   Although it has not been used for some time,

Massachusetts still has on its books a state tax through which the Commonwealth

can assess the cities and towns to offset any state budget deficit.   Assessing

individual cities and towns is appropriate when the distribution of benefits is

proportional to the charge.   However, for many public services it is difficult

to identify the beneficiaries with any precision.   In practice costs are often

assessed upon the locality where a service is provided although there are benefit

spillovers to residents of other areas as well.   Assessments are determined

either on a fee for service basis or by formula.   Table 9-1 summarizes the amount

to be charged the cities and towns for different programs in 1975.

Fees and Charges

Direct charges account for a relatively small share of total assessments,

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[1]State assumption of the responsibility for the cost of services now charged
to the cities and towns has been proposed in many places before; for two recent
examples see Equity and Choice in the Boston Metropolitan Area, Governor's Task
Force on Metropolitan Development, May 1974, and Reallocation of Responsibilities
and/or Financing for Selected Municipal Services to the State, the Boston Urban
Observatory, October 1973.

Table 9-1

1975 Assessment Summary

<u>Direct Charges</u>	$ 41,045,807.09
<u>Formula Charges</u>	
State Apportionment Basis	
County Charges[1]	$ 94,129,301.16
Recreation Areas	$ 30,080,345.75
Various Others	$ 421,602.00
Specfic Formulas	
MBTA Deficit	$ 55,672,628.00
Various Others	$ 9,657,090.98
TOTAL	$ 231,006,774.98

Source: Fiscal 1975 Cherry Sheet, All Municipalities (Form CS-1
and Supplement). Massachusetts Department of Corporations
and Taxation and 1974-1975 <u>Program Budget City of Boston
and County of Suffolk</u>, City of Boston.

[1]Suffolk County is not included in the cherry sheet because Boston
assumes all its costs. The 1974/1975 budget for Suffolk County
is $22,946,670.

17 percent in 1975. These fees are for services such as Metropolitan District
Commission water and sewerage; health insurance retirement programs for municipal
workers; expenses of the state assessment system; shellfish purification plants;
various area planning functions; state audit of municipal accounts; examination
of retirement systems and motor vehicle excise tax billing. Direct charges are
appropriate when a service can be provided more effectively at a central level
and when there is a clear distribution of benefits on which to base the charges.
In general, these assessments fulfill the criteria.

Formula Assessments

Two types of formulas are used for state assessments of the cities and
towns in Massachusetts: an overall "state apportionment basis" formula and
specific formulas for particular programs.

Specific Formula Charges

The costs of local planning councils, the Ipswich watershed district, mosquito
control projects and the MBTA deficit are allocated according to specific formulas.
The MBTA deficit assessment is the only one with a major impact. Under an
important recent change in the law the Commonwealth now assumes responsibility for
about 50 percent of the MBTA's deficit. This is an appropriate partial takeover
since public transit has benefit spillovers beyond the area immediately serviced.
While state assumption of this share of the deficit is not shown directly on the
cherry sheet, MBTA towns benefit by having a lower deficit assessment.

The 50 percent of the MBTA deficit the cities and towns do share is assessed
on the basis of several formulas depending upon which transit facilities

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service the locality. The formulas for allocating the MBTA deficit are quite

complicated and generally consider boarding counts at stations, number of

commuter passengers, population and valuation in an attempt to match cost with

benefit. Any attempt to allocate the benefits of mass transit is imprecise at

best. Some of the formulas are very old and all of them are the subject of

constant political battle. While it is probably not politically feasible at

this point, consideration should be given over the longer run to the assumption

of the entire deficit by the state. This could be done on a phase-in basis

with the state increasing its share each year. Another alternative is combining

the MBTA with one of the state's profitable authorities, such as Massport.

State Apportionment Formula

The state apportionment formula is used for assessing county costs, metro-

politan district debt service and the expenses of several recreation and air

pollution control districts and steamship authorities. These changes account

for the major share of all state assessments in 1975. The state apportionment

formula allocates costs among cities and towns in proportion to each jurisdiction's

share of the value of property in the area assessed for a service.[1] For example,

a municipality's share of its county's costs is determined by the proportion

of its equalized assessed value to that of all of the towns in the county.

Assessment on the state apportionment basis will account for 54 percent of all

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[1]Until 1975, the cash value figures used in determining assessments were
based 75 percent on 1945 equalized valuations and 25 percent on 1961 equalized
valuations. This practice distorted state aid formulas by failing to consider
the relative increase in property value in certain areas, suburban towns, for
example. Chapter 492, passed this year, mandates that the most recent equalized
valuation data produced every two years be used as the basis of the state
apportionment system in the future.

charges in 1975 indicating the importance of good assessment data, as discussed above.

The state apportionment formula implicitly assumes that equalized assessed value is an adequate indicator of demands on county government for services. However, there is no conclusive information indicating that this assumption is correct. Also even though the 1974 equalized assessed valuations are an improvement over those used in the past, given the appeals process and the likelihood of some compromise solutions it seems likely that some problems with the data will continue. There is some promise that better equalized data will result from court ordered 100 percent valuation.

If there is a real interest in reducing the burden of local property taxes in Massachusetts, it seems counterproductive for the state to continue to "charge back" the cities and towns for many of the services it does now. This is particularly true when it is difficult to determine precisely who benefits from a service and to allocate costs equitably. All charges based on the state apportionment basis could be eliminated for $125 million. Assessments for county costs and state recreation areas will account for $124.5 million of these charges in 1975, with air pollution control programs accounting for the remaining $421 thousand.

County Government

The primary function of county government in Massachusetts is judicial. Expenditures on this function consumed the major share of the counties' budgets in 1972.[1] To the extent that administration of justice is a matter of statewide

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[1] Commonwealth of Massachusetts, Annual Report of the Statistics of County Finances, 1972.

concern there is a question of the appropriateness of using county assessments as a financing mechanism. Obviously benefits spill across county lines for the judicial system. A Boston driver may have an accident with someone from the Cape and end up litigating the matter in Springfield. The same is true for criminal actions. The scope of the judicial system is statewide, and its proper functioning is clearly a state concern. Rather than attempting to split off this part of county government, which may be administratively impossible, it would seem reasonable for the state to take over county finance entirely. Even though the costs of county government are now borne by the cities and towns, their activities and service levels are mandated by the legislature and the Governor. As a result, it is virtually impossible for any individual city or town to control its county government costs.[1]

The cost of county government in 1975 would amount to about $114 million and state takeover would mean a reduction of local property tax rates by an average of 4.4 percent.[2]

County Hospitals

While the assessment for county hospitals, $3.1 million in 1975, is much lower than for general county costs, the same arguments support this assessment. Six counties presently operate hospitals in Massachusetts: Barnstable, Hampshire, Middlesex, Norfolk, Plymouth and Worcester. These hospitals were originally T.B. facilities, but all except Barnstable (which has been converted to a general

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[1] It is worth noting that Boston which has sole responsibility for Suffolk County has been able to use that power to keep county costs in line. See Governor's Task Force, op. cit.

[2] This includes $22.9 million for Suffolk County which is not reflected on the cherry sheets since it is assumed entirely by Boston.

hospital) now treat the chronically ill.[1] While preference for admission is given

to county residents, most of the institutions actually serve clients from all over

the state, many of whom are indigent. By controlling disease, and thus promoting

good health, county hospitals actually serve the state as a whole. Elimination

of state assessments for county hospitals would reduce the average tax rate in

the affected municipalities by about three-tenths of one percent.

Metropolitan District and Other Recreation Areas

The Commonwealth presently assesses the cities and towns for certain recreation

facilities it administers either directly or through the Metropolitan District

Commission. Of these cities and towns, 37 are within the Metropolitan District

area and are assessed for the total costs of MDC capital expenditures on recreational

facilities as well as about 40 percent of their operating expenses. These cities and

towns help pay the costs of these facilities but do not have direct control over

their budgets which are set by the legislature and the Governor. At least to

some extent the benefits of these recreational areas are distributed to all citizens

of the Commonwealth. The same arguments are true for the 314 towns outside of

the Metropolitan District which are assessed for state recreational areas.

Elimination of the state assessments for parks and recreation facilities would

lower overall demands on local property taxes by about $30 million and reduce the

average tax rate of the affected municipalities by 1.2 percent.

Air Pollution Control Districts

The total assessment for Air Pollution Control Programs is only $421 thousand

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[1]Boston Urban Observatory, op. cit. pp. 73-75.

in 1975, however this charge may become more important in the future. Air pollution

control is the classic case of a service where externalities make it almost impossibl

to allocate costs according to benefits. Lowering the level of pollution clearly

helps those in areas beyond the immediate pollution control district.

Conclusion

Strong consideration should be given to eliminating assessments now made on

the state apportionment basis. As indicated above the services funded through

this assessment provide benefits to all Massachusetts citizens. Furthermore, as

this program is now structured cities and towns have to finance costs over which

they have no control. Eliminating state apportionment assessments would also

mitigate any distortions which may continue to exist because of problems in

equalized valuations.

State takeover of the full cost of programs funded on the state apportionment

basis would lower local property taxes by $147.6 million in 1975 and reduce the

average property tax rate in the state by 6.1 percent.[1] Reducing assessments mitigat

the need for increased aid for nonschool functions and should be considered as

part of whatever package is eventually proposed. This approach however does not

reduce the variation in local tax rates as much as distributing an equivalent

amount of money on the basis of any of the EMG formulas discussed above. Because

assessments are proportional to equalized valuation, their elimination would not

cause an equalizing reduction in local tax rates. Appendix 9-1 shows the impact

in each of the 351 cities and towns of removing these levies. If reducing

assessments is one part of a reform proposal, whatever EMG approach is adopted

must be strongly equalizing.

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[1]This includes the impact of state takeover of the costs of Suffolk County
which is not reflected in the cherry sheet (footnote 1, Table 9-1).

Part III   STATE REVENUE STRUCTURE

Chapter 10

STATE TAX STRUCTURE: INTRODUCTION AND SUMMARY

Alicia H. Munnell

Massachusetts state tax revenues amounted to $1.7 billion in 1972 and

should rise to $2.2 billion in fiscal 1975 (See Table 10-1). State revenues

have increased in importance as a share of state-local revenue due to the

growth of the individual and corporation income taxes and the introduction of a

limited 3 percent sales tax in 1966 (See Table 10-2).

Present Structure. At the state level, the individual income tax

is the single largest source of revenue. For 1975, Massachusetts personal

income tax receipts should account for 47 percent of total state revenues.

Massachusetts tends to rely comparatively more heavily on the income tax

and to a lesser degree on the general sales tax than the average of all

the states (see Table 10-3). The tax rate in Massachusetts is 5 percent on

earned income and 9 percent on income from capital.

The second major source of income at the state level is the business

excises which should raise $362 million in 1975 accounting for almost 17

percent of state tax revenues.   These taxes are both constitutionally and

legally a tax on the privilege of doing business in the Commonwealth.

The most important of them is the corporation excise, which was first

levied in 1864 as a substitute for the property tax. A tax on net income

was added in 1915, but the property base was retained as an integral part

of the tax until 1971 when it was decided to phase it out. As of 1975 the

corporation excise tax amounts to the sum of a) 8.55 percent of net income and

b) $2.60 per $1,000 of value of tangible property not subject to local taxa-

tion. The tax on tangible property is in the process of being phased out.

Table 10-1

MASSACHUSETTS STATE TAXES, FISCAL YEARS 1969, 1972, 1975

	1969		1972		1975	
	Dollars (millions)	% of Total	Dollars (millions)	% of Total	Dollars (millions)	% of Total
Individual Income	452.6	38.9	743.6	43.2	1,029.5	47.1
Business Excise	236.8	20.3	325.4	18.9	362.0	16.6
Corporation Excise	173.0	14.9	213.9	12.4	240.0	11.0
Other Business Excise	63.8	5.5	111.5	6.5	122.0	5.6
Selective Sales	276.9	23.8	391.6	22.7	440.2	20.2
Gasoline	127.4	10.9	172.9	10.0	173.1	7.9
Tobacco	56.2	4.8	79.1	4.6	88.2	4.0
Alcohol	45.7	3.9	58.9	3.4	69.0	3.2
Other	47.5	4.1	80.7	4.7	109.9	5.0
General Sales	158.3	13.6	200.3	11.6	262.3	12.0
Inheritance	40.3	3.5	61.2	3.6	70.0	3.2
Other	---	---	---	---	20.0	0.9
Total State Taxes	1,164.9	100.0	1,722.7	100.0	2,184.0	100.0

Source: House 1 Budget Documents

Table 10-2

PERCENTAGE DISTRIBUTION OF MASSACHUSETTS STATE-LOCAL REVENUES,
1942-1973 SELECTED YEARS

GENERAL REVENUE

	1942	1953	1957	1962	1967	1970	1973
Federal Aid	7.0	7.9	7.2	11.0	14.0	15.8	18.3
Revenue from Own Sources	93.0	92.1	92.8	89.0	86.0	84.2	81.7
Total Taxes	86.4	83.4	83.5	78.9	74.9	73.6	70.8
Property Taxes	58.1	48.4	48.4	47.8	38.8	37.0	35.5
Individual Income Taxes	5.1	7.8	9.1	9.9	10.0	13.5	14.9
Corporation Income Taxes	0.2	2.6	2.5	1.8	2.1	5.7*	4.4*
General Sales Taxes	--	--	--	--	4.8	4.4	3.9
Selective Sales Taxes	10.5	12.5	11.8	10.5	10.8	9.3	8.6
Other Taxes	12.5	12.1	11.7	8.9	8.3	3.7	3.5
Charges & Misc. General Revenue	6.6	8.7	9.3	10.1	11.1	10.5	10.9
TOTAL GENERAL REVENUE	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TAX REVENUE

	1942	1953	1957	1962	1967	1970	1973
TOTAL TAXES	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Property	67.2	58.0	58.0	60.6	51.8	50.3	50.1
Individual Income	5.9	9.4	10.9	12.5	13.4	18.3	21.1
Corporation Income	0.2	3.1	3.0	2.3	2.8	7.7*	6.2*
General Sales	--	--	--	--	6.4	6.0	5.5
Selective Sales	12.2	15.0	14.1	13.3	14.4	12.6	12.2
Other	14.5	14.5	14.0	11.3	11.1	5.0	4.9

*Includes portion of the corporation taxes and excise taxes measured by corporate excess. Separation not available.

SOURCE: Advisory Commission on Intergovernmental Relations, Federal-State-Local Finances: Significant Features of Fiscal Federalism, 1973-74.

Table 10-3

State Tax Revenue by Type of Tax, 1973

(Percent of Total Tax Revenues)

	Individual Income	Corporate Net Income	General Sales	Selective Sales				Death & Gift	Other
				Total	Motor Fuels	Alcoholic Beverages	Tobacco Products		
Alabama	15.3	4.4	31.1	36.6	15.7	6.3	4.5	0.3	12.3
Alaska	39.8	6.4	--	23.0	11.4	4.8	3.0	0.1	30.7
Arizona	15.9	5.5	39.2	22.3	12.9	1.9	3.7	0.5	16.6
Arkansas	17.1	7.2	32.1	32.1	18.1	2.9	7.2	0.2	11.3
California	25.8	11.8	29.9	19.4	10.2	1.6	3.4	3.5	9.6
Colorado	27.9	5.8	33.0	22.3	14.0	2.2	2.3	2.6	8.4
Connecticut	4.5	12.3	39.8	31.4	12.3	2.2	6.3	5.7	6.3
Delaware	38.5	6.7	--	21.8	8.8	1.6	4.2	2.1	30.9
Florida	--	5.9	41.9	33.5	14.0	6.2	6.4	1.3	17.4
Georgia	21.0	8.4	35.2	30.1	16.7	5.5	4.9	0.4	4.9
Hawaii	31.2	3.0	48.7	14.9	4.6	2.4	1.7	0.5	1.7
Idaho	25.6	7.1	27.1	24.6	15.8	2.4	3.2	0.8	14.8
Illinois	24.3	6.2	32.5	24.9	10.2	2.0	4.4	2.4	9.7
Indiana	23.9	0.8	40.7	24.0	15.5	1.8	4.0	1.9	8.7
Iowa	28.3	5.5	28.5	22.1	13.4	1.4	4.8	2.6	13.0
Kansas	18.7	8.8	32.8	26.9	17.3	2.2	4.5	1.6	11.2
Kentucky	17.6	6.8	31.2	30.3	16.7	1.4	1.9	1.4	12.7
Louisiana	8.6	7.6	24.7	26.2	12.6	3.5	4.3	0.5	32.4
Maine	10.3	3.3	38.7	34.4	16.7	6.3	6.4	2.0	11.3
Maryland	35.4	5.5	22.4	25.7	11.8	1.7	2.2	0.8	10.2
Massachusetts	42.7	12.6	11.2	24.7	9.0	3.0	5.4	3.8	5.0
Michigan	26.2	10.3	31.0	18.2	9.9	2.1	3.7	0.9	13.4
Minnesota	35.8	10.4	18.3	25.0	8.8	2.9	4.6	2.0	8.5
Mississippi	10.6	3.9	48.0	27.2	17.3	2.1	3.5	0.6	9.7
Missouri	26.4	5.3	30.1	25.8	16.5	1.9	4.7	1.3	11.1
Montana	41.2	6.4	--	33.7	19.1	3.9	5.5	2.6	16.1
Nebraska	22.7	3.7	29.0	32.5	21.1	2.4	5.3	0.2	11.9
Nevada	--	--	34.5	49.8	15.8	3.8	5.0	--	15.7
New Hampshire	4.9	12.2	--	58.1	23.4	1.8	15.4	4.4	20.4
New Jersey	1.3	8.9	35.5	31.6	14.2	2.7	8.6	3.9	18.8
New Mexico	12.8	3.9	39.7	23.1	13.4	1.5	3.1	0.4	20.1
New York	39.3	10.7	21.2	18.5	5.8	1.9	4.0	2.0	8.3
North Carolina	26.0	8.4	22.3	30.4	16.0	4.5	1.2	2.2	10.7
North Dakota	15.2	5.6	39.0	24.0	14.0	3.0	4.2	0.6	15.6
Ohio	14.0	6.3	30.2	31.1	13.8	2.5	7.0	0.9	17.5
Oklahoma	15.1	5.1	18.0	33.9	15.7	4.1	6.4	2.5	25.4
Oregon	50.4	8.6	--	22.8	14.2	0.5	5.0	3.0	15.2
Pennsylvania	23.1	11.4	25.4	23.8	10.2	2.3	5.3	3.0	13.3
Rhode Island	21.4	9.8	30.3	28.6	10.1	2.2	5.6	2.8	7.1
South Carolina	22.2	7.7	34.7	28.9	14.7	6.5	2.5	0.6	5.9
South Dakota	--	0.6	42.6	42.3	23.6	3.8	5.4	2.2	12.3
Tennessee	1.5	10.2	40.0	29.3	17.0	2.9	5.8	3.2	15.8
Texas	--	--	32.9	38.2	13.7	3.4	8.6	1.7	27.2
Utah	24.6	8.2	37.8	18.6	13.4	1.0	1.8	1.0	9.8
Vermont	28.4	4.5	14.5	36.8	12.3	6.6	4.6	3.1	12.7
Virginia	31.6	6.9	20.9	30.0	16.5	3.0	1.1	1.2	9.4
Washington	---	--	53.4	26.2	12.4	4.5	4.0	2.8	17.6
West Virginia	15.6	2.1	43.2	30.2	12.2	3.3	4.2	1.0	7.9
Wisconsin	39.0	7.3	23.2	17.6	8.3	2.0	4.1	2.1	10.8
Wyoming	--	--	42.0	29.7	22.3	1.2	3.5	0.9	27.4
U.S. Average	23.0	8.0	29.0	25.4	11.8	2.7	4.6	2.1	12.5

-- = not applicable

Source: U.S. Department of Commerce, Bureau of the Census, State Tax Collections in 1973.

Separate excises are imposed on commercial banks, savings banks, insurance companies and public utilities. Data indicate the taxes on both private electrical utilities and the insurance industry are exceptionally high in Massachusetts.

The next most important source of state tax revenue is the general sales tax. However, the Massachusetts 3 percent sales tax which was first adopted in 1966 has one of the lowest revenue yields in comparison with other states because of its limited coverage. Items specifically exempt from the tax include food products, clothing, medicine--most of consumers' basic expenditures.

The largest source of selective sales revenues is the gasoline excise. However, slow growth is predicted in gasoline tax revenues because the tax is based on the quantity sold rather than the price of gasoline sold.

In Massachusetts aside from taxes on cigarettes and alcohol, there are also selective sales taxes on room occupancy and meals. In fiscal 1975, total selective taxes will amount to $460 million or 21 percent of total tax revenues.

The inheritance tax was first enacted in 1891 and has existed in its present form since 1907, although the rates have been increased several times, moset recently in 1969. This tax will be about $70 million in 1975, accounting for only 3 percent of total revenues.

Tax Reform and New Sources of Revenue. On the whole, the Massachusetts state tax structure is quite equitable and fairly progressive. The progressivity in the income tax comes from the large exemptions at the low end and the differential rate on earned and unearned income. The regressivity of the sales tax is mitigated by the exemption from the tax base of almost all necessities including

food, clothing, and prescription drugs. In the area of business taxes, the major defect in the corporation excise--namely, the levy on tangible property--is being phased out quite rapidly. The only area demanding drastic reform is the taxation of insurance companies, where the tax base is inappropriate and the tax burden is excessive.

Additional revenues can be raised quite easily at the state level by expanding the sales tax. Expanding the sales tax base and raising the rate to 4 percent could yield an additional $350 million in revenues. The personal income tax is another source of potential revenue. The income tax could be raised to yield another $100-$250 million. Whether these additional income tax revenues are raised under the present structure, through a graduated income tax or by piggybacking the Federal tax is one of the major policy decisions that must be addressed.

The following chapters will present the options available under each of the major state taxes and summarize in detail some of the feasible alternatives.

Chapter 11

INDIVIDUAL INCOME TAX

Alicia H. Munnell

The individual income tax, scheduled to raise $1,029.5 million in 1975,

is the mainstay of the Massachusetts state fiscal structure. The relative

importance of this tax has increased dramatically over time -- from 22

percent of state tax revenues in 1955 to 47 percent in 1975.

The present income tax is a two-part levy which taxes earned income

(and interest on Massachusetts savings deposits) at 5 percent and unearned

income (including other interest, dividends, and all capital gains) at 9

percent. In calculating taxable income, personal exemptions, amounting to

$2,000 for the first family member and $600 for each dependent,[1] are subtracted

from gross income and deductions are permitted for Social Security contributions,

medical expenses, and interest paid other than on home mortgages.[2] Furthermore,

personal income tax is not collected from individuals with incomes under $3,000

nor from couples with incomes under $5,000.

Table 11-1 summarizes the distribution of income and tax burden among

different income classes for fiscal year 1975. The bulk of the revenut

(61 percent) comes from individuals in the $10-25,000 range. The additional

tax on unearned income (i.e., taxing income from this source at 9 percent rather

than 5 percent) raises only $67 million in revenue. Although the additional

4 percent rate is not an important source of revenue, it does have a significant

effect on the progressivity of the tax structure.

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[1]On joint returns, if the spouse earns income, there is an additional
exemption which amounts to the smaller of 1) the spouse's income or 2) $1,400.

[2]Major Federal deductions not permitted for the Massachusetts tax are
as follows: home mortgage interest, property taxes, charitable contributions,
one-half of capital gains. On the other hand, Social Security is not deductible
under the Federal tax law.

Table 11-1

Derivation of Massachusetts Income Tax, Fiscal 1975
(Millions of Dollars)

Income Class	Number of Returns (000's)	Total Income	Income on Taxable Returns	Less Exemptions	Less Contributions to Social Security	Less Medical Deductions	Total Taxable Income	Taxable at 5%			Taxable at 9%				Total Tax	Effective Rate
								Earned	Interest (Mass.)	Total	Interest	Capital Gains	Dividends	Total		
Under 2		276.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-4	75.6	563.2	226.4	153.4	10.4	3.1	59.5	37.6	9.1	46.7	5.3	3.6	3.9	12.8	3.5	0.6
4-5	116.3	697.5	572.6	263.2	29.0	11.4	269.0	228.0	14.6	242.6	9.4	9.5	7.4	26.4	14.5	2.1
6-8	155.4	1,070.5	1,070.5	332.8	62.3	21.0	654.3	602.1	17.6	619.7	11.4	12.6	10.7	34.7	34.1	3.2
8-10	238.3	2,139.4	2,139.4	594.0	143.4	37.2	1,364.9	286.7	22.9	1,309.6	16.6	22.2	16.4	55.2	70.5	3.3
10-15	678.9	8,266.6	8,266.6	1,918.7	608.8	123.6	5,615.6	5,313.3	82.6	5,395.8	60.7	91.9	67.2	219.8	289.6	3.5
15-20	351.9	5,953.5	5,953.5	1,068.8	409.8	88.7	4,386.2	4,096.5	78.7	4,175.2	48.8	95.3	66.9	211.0	227.8	3.8
20-25	125.6	2,773.3	2,773.3	387.5	164.8	39.8	2,161.3	1,971.6	55.5	2,027.1	29.2	66.8	58.1	154.1	115.2	4.2
25-30	49.4	1,355.9	-1,355.9	150.1	59.2	19.4	1,127.2	975.1	35.6	1,010.7	17.6	51.9	46.9	116.5	61.0	4.5
30-35	47.2	1,807.5	1,807.5	141.2	59.3	21.3	1,585.7	1,298.7	62.0	1,360.7	29.4	104.7	91.0	225.0	88.3	4.9
50-100	20.0	1,367.8	1,367.8	61.0	18.2	10.6	1,278.0	949.2	35.2	984.4	38.7	130.2	124.7	293.6	75.6	5.5
100+	3.8	728.4	728.4	11.0	3.4	3.1	710.8	342.6	20.4	363.1	21.6	183.1	142.1	347.7	49.5	6.8
Total	1,651.4	27,000.0	26,262.1	5,081.7	1,568.6	379.2	19,232.6	17,101.5	434.2	17,535.8	288.7	771.7	636.4	1,696.8	1,029.5	

Source: Author's estimates. See Appendix 11-1.

Given the background on the existing income tax, two important questions arise: 1) How much more revenue could be raised through the individual income tax without placing Massachusetts dramatically out of line with other states? and 2) Should Massachusetts switch to an alternative method of raising the current level of income tax revenues?

I. Additional Revenue from the Personal Income Tax

Although Massachusetts relies very heavily on the personal income tax, this tax is not excessively burdensome in view of the Massachusetts tax base. Whether Massachusetts' ability to pay is measured in terms of personal income or by Federal tax liability, this state's income tax burden is either 7th or 8th in the nation. (See Table 11-2.) If Massachusetts had the same ratio of tax liability to personal income as Wisconsin, the state with the highest ratio, then personal income tax revenues for 1975 would be $242 million higher than the forecasted level of $1,029.5 million. If Massachusetts assumed the same ratio of tax to personal income as New York, revenues for 1975 would be about $100 million higher.

In short, Massachusetts has some leeway to raise additional revenues through the personal income tax, but these additional revenues should not exceed $100-$250 million if we are to avoid making the Massachusetts personal income tax burden significantly greater than that of other states.

Under the existing tax structure, raising the earned and unearned rates 6 percent and 11 percent respectively would yield slightly more than $200 million. Increasing the rates further to 7 percent and 12 percent would yield about $400 million.

Table 11-2. Individual Income Tax Burden by State, Fiscal 1973

| | Per $1,000 Personal Income | | A Percent of 1972 Federal Liability | | Per Capita | |
	$	Rank	Percent	Rank	$	Ra
Wisconsin	37.85	1	34.8	1	159.31	4
Delaware	37.63	2	28.9	7	191.48	1
Minnesota	35.01	3	34.2	2	150.43	6
Hawaii	33.56	4	30.9	5	162.18	3
New York	33.36	5	26.3	9	175.85	2
Oregon	32.13	6	29.3	6	135.08	7
Massachusetts	31.19	7	26.8	8	150.63	5
Vermont	29.21	8	32.3	3	107.22	10
Montana	26.81	9	31.4	11	106.89	11
Maryland	26.05	10	21.9	12	126.76	9
U.S. Average	16.76	-	14.9	-	74.59	-

Source: U.S. Bureau of the Census, State Tax Collections in 1972 and State Tax Collections in 1973; U.S. Treasury Department, International Revenue Service, Statistics of Income, 1971, Individual Income Tax Returns.

II. Alternative Tax Schemes

Tables 11-3 and 11-4 summarize the distributional implications of alternative ways for Massachusetts to raise fiscal year 1975 tax revenues of $1,029.5 million. Table 11-3 presents for each revenue scheme and for each income class the effective tax rates before deduction from the Federal income tax, while Table 11-4 presents the net effective rates adjusting for the benefits of deductibility from the Federal tax. Deductibility of the state tax at the Federal level changes the distributional picture significantly.[1]

Ignoring the effects of the Federal tax for the moment, the existing tax system appears fairly progressive as a result of both the large exemptions at the lower end of the scale and the differential taxation of earned and unearned income. As shown in column 2 of Table 11-3, eliminating this rate differential and taxing all income at a uniform rate of 5.5 percent would significantly reduce the tax burden for upper income families.

The third column shows the distributional effects of applying graduated rates to the Massachusetts tax base. Of course, it is possible to construct almost an infinite number of graduate tax schedules that would yield an equivalent amount of revenue. The rates used in Tables 11-3 and 11-4 are quite steeply progressive and are based on those applied to personal income in New York. Applying New York rates directly to Massachusetts' income yielded more than the required revenue, so that the rates were adjusted downward to yield exactly $1,029.5 million. The adjustment resulted in a maximum marginal rate of 13.4 percent on taxable income in excess of $25,000.

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[1]The results in these tables are very close to those in a similar study for 1973 by Edward Moscovitch, "State Graduated Income Taxes -- A State-Initiated Form of Federal Revenue Sharing." National Tax Journal, March 1972, pp. 53-64.

Table 11-3. Massachusetts Effective Personal Income Tax Rates
Under Alternative Schemes for Raising $1,029.5 Million
Fiscal 1975

Income Bracket (Thousands)	Percent of Total Income in Bracket	Massachusetts Base			Piggybacking on Federal Tax		
		1975 Law	All Income at 5.484%	Graduated Rate Structure^a	Federal Taxable Income at 5.918%	Taxable Income + Capital Gains at 5.785%	Federal Income Tax Liability at 27.52%
				(Percent)			
Under 2	1.0	*	*	*	**	0.2%	**
2-4	2.1	0.6%	0.5%	*	1.2%	1.2	1.1%
4-6	2.6	2.1	2.1	*	2.3	2.3	2.2
6-8	4.0	3.2	3.1	0.8%	3.0	2.9	2.8
8-10	7.9	3.3	3.3	1.9	3.2	3.2	3.0
10-15	30.5	3.5	3.5	2.4	3.8	3.7	3.1
15-20	22.1	3.8	3.9	3.4	4.0	4.0	3.6
20-25	10.3	4.2	4.2	4.5	4.2	4.1	4.0
25-30	5.0	4.5	4.5	5.7	4.3	4.3	4.4
30-50	6.7	4.9	4.7	7.8	4.3	4.4	5.2
50-100	5.1	5.5	5.1	10.3	4.4	4.6	7.2
100+	2.7	6.8	5.4	12.3	3.8	4.4	8.6

Source: Author's estimates. See Technical Appendix.

^aThis tax is based on the New York graduated rate structure and credits for low income families. Applying the New York rates yielded excess receipts, so that the rates were adjusted downward to yield exactly $1,029.5 million. This adjustment resulted in a maximum marginal rate of 13.4%.

Table 11-4. Massachusetts Net[1] Effective Personal Income Tax Rates
Under Alternative Schemes for Raising $1,029.5 Million
Fiscal 1975

Income Bracket (Thousands)	Percent of Total Income in Bracket	Massachusetts Base			Piggybacking on Federal Tax		
		1975 Law	All Income at 5.48%	Graduated Rate Structure[a] (Percent)	Federal Taxable Income at 5.918%	Federal Taxable Income + Capital Gains at 5.785%	Federal Income Tax Liability at 27.52%
Under 2	1.0	*	*	*	**	0.2%	**
2-4	2.1	0.5%	0.4%	*	1.0%	1.0	0.9%
4-6	2.6	1.8	1.8	*	2.0	2.0	1.9
6-8	4.0	2.7	2.6	0.7%	2.5	2.4	2.3
8-10	7.9	2.7	2.7	1.5	2.6	2.6	2.4
10-15	30.5	2.8	2.8	1.9	3.1	3.0	2.5
15-20	22.1	3.0	3.0	2.7	3.1	3.1	2.8
20-25	10.3	3.2	3.2	3.4	3.2	3.1	3.0
25-30	5.0	3.1	3.1	3.9	3.0	3.0	3.0
30-50	6.7	3.0	2.9	4.8	2.6	2.7	3.2
50-100	5.1	2.6	2.4	4.8	2.1	2.2	3.4
100+	2.7	2.4	1.9	4.5	1.4	1.6	3.1

*No tax imposed.
**Less than 0.1%.
[1]Net effective rate after allowance for deduction of state taxes from the federal income tax.

Source: Author's estimates. See Technical Appendix.

[a]This tax is based on the New York graduated rate structure and credits for low income families. Applying the New York rates yielded excess receipts, so that the rates were adjusted downward to yield exactly $1,029.5 million. This adjustment resulted in a maximum marginal rate of 13.4%.

The second half of Table 11-3 shows the effects of "piggybacking" the
Massachusetts tax on the Federal income tax. Applying a uniform rate to the
Federal taxable income yields a pattern of tax liability that becomes regressive
for incomes over $50,000. This regressivity is reduced somewhat if the
excluded half of capital gains is added back into taxable income (col. 5).
On the other hand, if the tax is based on Federal liability rather than
taxable income, then the incidence becomes quite progressive.

Piggybacking the Federal tax liability or introducing graduated rates
have both been discussed as alternatives to the existing Massachusetts income
tax and therefore both these alternatives deserve further attention.
Introducing either type of progressive tax would require a constitutional
amendment which would take four years. The final choice among the present
tax, piggybacking or graduate rates will reflect a compromise among the
conflicting goals of equity, attractive climate for business and ease of
administration. The final choice must be a political decision and the
following sections are designed simply to point out the advantages and
disadvantages of the different tax schemes.

Graduated rates. As of fiscal year 1974, of the 44 states with income
taxes, 32 states had graduated rate structures,[1] four piggybacked the Federal
tax liability, four had flat rates, three taxed only capital income,[2] and
finally Massachusetts taxed earned and unearned income at

[1]The states with progressive rates include Alabama, Arizona, Arkansas,
California, Colorado, Delaware, Georgia, Hawaii, Idaho, Iowa, Kansas,
Kentucky, Louisiana, Maine, Maryland, Minnesota, Mississippi, Missouri,
Montana, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio,
Oklahoma, Oregon, South Carolina, Utah, Virginia, West Virginia, Wisconsin and
Washington, D.C. ACIR, Federal-State-Local Finances, 1973-74 edition.

[2]Alaska, Nebraska, Rhode Island and Vermont piggyback the Federal liability;
Illinois, Indiana, Michigan and Pennsylvania have flat rates; Connecticut, New
Hampshire and Tennessee tax only capital income.

different rates.[3]

The advantages of a progressive tax are well known:

1. Equity. By requiring wealthy individuals to contribute a higher proportion of their incomes, a progressive rate structure results in a more equitable distribution of the tax burden.

2. Revenue Growth. With a progressive tax, revenues are more than proportionately responsive to increases in personal income, thereby reducing the need for raising rates.

3. Federal Government Shares Burden. Since state taxes are deductible for Federal income tax purposes, shifting the tax to those in the upper income brackets increases their Federal tax savings. (See Table 11-4.)

Under the graduated income tax shown in Tables 11-2 and 11-3, the effective rates on families with incomes over $50,000 increased by 75 percent. However, even this dramatic increase in tax burden on upper income individuals yields less than $100 million in additional revenues from this group. These figures clearly indicate that the main argument in favor of a graduated income tax is deriving an equitable distribution of the tax burden rather than raising large additional revenues from high income families.

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[3] It should not be inferred that Massachusetts effective rates are necessarily less progressive than those in states with graduated rates. As mentioned earlier, the large exemptions at the low end and the additional 4 percent tax on unearned income cause effective tax rates to increase as incomes increase.

Not only would the effective rates by income class increase more
sharply, but the taxation of individuals within a given income class would
be more equitable. Under the present Massachusetts tax, it is possible
for a widow with $5,000 of interest from corporate bonds to be taxed at
9 percent while an executive with an income of $100,000 would be taxed
at 5 percent.[1] Graduated rates applied to the Massachusetts tax base would
eliminate this inequity.

While a graduated income tax might be attractive from the point of
view of tax equity, other factors must also be taken into consideration
when designing a state's tax system. If a steeply progressive income tax
were to act as a signal to executives that the state were hostile to business,
then a progressive tax may retard Massachusetts' economic growth.
Furthermore, there is considerable opposition to a graduated income tax
for fear that once it were instituted the legislators might introduce
confiscatory rates on upper income individuals.

In short, whether or not Massachusetts should have a graduated income
tax is a political choice between the increase in tax equity on the one
hand and the potential harm to economic development on the other.

Piggybacking Federal Liability. Piggybacking is an alternative
mechanism for introducing progressivity into the tax structure while
placing a limit on the maximum tax rate. Using the Federal
liability as the tax base would also simplify the task for the taxpayer

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[1]Actually, the problem of taxing capital income in the lower brackets
should not be exaggerated because several provisions in the tax law insure that
the burdens are not excessive: 1) families with incomes under $5,000 and
individuals with incomes under $3,000 are not taxed, 2) income from
Massachusetts savings accounts is taxed at 5 percent, and 3) interest from
U.S. government securities is not taxable under a state income tax.

which is another important argument in its favor.[1] Finally, Massachusetts

might save several million dollars in collection costs by moving from its

present system to piggybacking.[2]

It is difficult to evaluate the fairness of a piggybacking scheme

compared to the present Massachusetts tax. The present Massachusetts tax

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[1]Piggybacking is slightly more complicated than it seems initially.
First, an adjustment must be made to delete the interest on obligations of
the U.S. Government included in the taxpayer's gross income. The adjustment
might in turn necessitate a recomputation, for purposes of the state tax,
of the retirement credit, the investment credit, or the foreign credit. A
second adjustment would be required to exclude income earned in another
state. Finally, unless the burden on low-income taxpayers is to be increased,
some sort of credit or exemption would have to be introduced.

[2]Piggybacking the Federal tax does not necessarily imply Federal
collection, but Federal collection of state individual income taxes is an
option that becomes available once a state makes its tax base conform with the
Federal. Federal collection would eliminate much of the duplication of
administrative effort for routine receipt and processing of returns. "This
would not be true, however, in respect to compliance, where at present combined
Federal and state efforts cover only a relatively small percentage of all
individual income taxpayers." Under the present system, the Federal
government audits about 1.9 percent of all returns, and the results of these
audits are sent to the states. In Massachusetts, the state auditors now
review the returns of almost all individuals with incorrect Federal tax
data. In addition, the state undertakes further audits and can collect
about $3-4 million for each $1 million expenditure on enforcement.
Consequently, the state already benefits from the Federal auditing results,
and because of the profitability of additional auditing the state would
want to continue its own enforcement efforts. Federal Collection of State
Individual Income Taxes under Public Law 92-512, p. 17.

base is very comprehensive and inequities arise solely from the punitive 9 percent tax on unearned income. In the case of piggybacking, the inequities arise from the loopholes in the Federal tax base. Under the Federal tax, there is significant discrimination in favor of homeowners over renters due to the deductability of mortgage interest and property taxes. Furthermore, high income individuals also benefit significantly from the exclusion of half of capital gains from the tax base and the exemption of interest on state and local bonds. Therefore, moving from the present system to a piggy-backing scheme involves adopting the inequities of the Federal tax base in exchange for the elimination of the 9 percent tax on capital income which is so burdensome for some low income individuals.

The major problem with piggybacking the Federal tax is that any changes in the Federal law are reflected automatically and immediately in the state's revenues. The experience of Oregon is particularly interesting-- Oregon adopted the Federal income tax base in June 1969 in order to simplify regulations for the taxpayer. In December 1969, the Federal income tax law was modified and these modifications resulted in unanticipated revenue losses of $30 million. The Governor decided not to increase income tax rates, but rather to cut back expenditures and raise other taxes. However, in 1971 Congress was once again preparing to alter the Federal law and these new provisions would have reduced Oregon revenues by another $14 million. In anticipation of this loss, the legislature terminated the automatic adoption of Federal law changes. By the end of 1972, the Federal and Oregon tax laws differed on 12 basic provisions, which meant that the desired simplicity no longer existed. The Oregon experience thus points up the fact that any state adopting the Federal base must be prepared to adjust its tax rates

as the Federal tax law is modified.[1]

Summary

In Massachusetts the personal income tax is the major source of revenue at the state level. The distribution of tax burden by income class is presently quite progressive due to the large exemptions at the bottom and the 9 percent tax on capital income. At a maximum, only another $240 million could be raised under the personal income tax without bringing Massachusetts dramatically out of line with other states. In terms of alternative ways of raising the present revenues, piggybacking the Federal tax liability or applying graduated rates have received the most attention. While a graduated income tax has theoretical advantages, it would probably worsen Massachusetts' image of an unfavorable business climate. Piggybacking offers moderate progressivity and administrative simplicity. The final decision will be based on political compromise.

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[1]Report of the Special Committee of the National Association of Tax Administrators, Federal Collection of State Individual Income Taxes Under Public Law 92-512, December 1972.

Chapter 12

CORPORATION EXCISE AND OTHER BUSINESS TAXES

Alicia H. Munnell

In fiscal 1975, Massachusetts will raise $362 million or 1.7 percent of state

tax receipts through taxes levied on business. (See Table 12-1). In addition,

businesses will be required to contribute almost $300 million to the state to

finance the unemployment compensation program. This chapter will evaluate the

level and structure of the present corporation excise tax and then look at

the special problems posed by the high levies on life insurance companies and

the unemployment compensation tax. Finally, estimates will be made for the

potential revenues to be raised from increasing business taxes either by

raising corporate rates, eliminating the investment tax credit, introducing

a statewide payroll tax, or extending the sales tax to machinery.

Corporation Excise Tax

The most important of the business taxes is the corporation excise tax.

This tax is levied primarily on corporation net income, but there is also a

small residual levy on the value of tangible property not subject to local

taxation. The tax rate on income is 7.5 percent plus a 14 percent surcharge,

bringing the total rate to 8.55 percent. The tax on tangible property, which

was $7.98 in 1971, has been reduced to $5.76 for 1974, and should be reduced

to below $2.60 for 1975.[1] In 1975, the tax on tangible property should account

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[1]The tax applicable to tangible property is being phased out. The amount
by which this tax is reduced in any given year depends on the excess in the
previous fiscal year of corporation tax revenues over the 1970 revenue level
of $202 million plus $6 million for each year after 1970. Therefore for 1975,
the amount of tax reduction is based on 1974 revenues of $262 million less
$226 [$202 + [4x$6]]. The excess over the base, 262-226 = 36 is then multi-
plied by the fraction .877 to arrive at the actual amount of tax reduction.
The rate is then calculated on the assumption that tangible property
amounts to only $11.4 billion.

Table 12-1

Corporate Excise and Other State Business Tax Receipts
Fiscal 1975

Tax	Millions	Percent of Total State Revenue
Corporate Excise	$240	11.0
Other Business Taxes	122	5.6
Insurance	70	3,2
Life Insurance	37	1.7
Other	33	1.5
Commercial Banks	20	.9
Savings Institutions	23	1.1
Public Utilities	9	.4
Total Corporate and Business	$362	16.6
Unemployment Compensation (1974)	$274	

Source: House 1 Budget Documents.   Unemployment compensation
          data from Massachusetts Department of Employment Security.

for only 12 percent of total revenues from corporations under the current law and is scheduled to be phased out completely. Therefore, the following discussion will focus solely on the income levy.

Massachusetts raises a greater portion of its state revenues from the corporation income tax than any other state. The heavy reliance on the corporation excise tax can be attributed to the combined effect of Massachusetts' extremely industrialized economy and a fairly high corporate tax rate. Six other states[1] do apply a higher corporation income tax rate than Massachusetts while Ohio, Connecticut and Arizona all tax corporations at 8 percent, which is about comparable to Massachusetts. (See Table 12-2.)

The general level of the corporation income tax should probably not be changed and, since the excise on tangible property is being phased out, there is no need to alter the structure of the tax. However, there is a legitimate question about the appropriate rate to apply to the net income of banks. Currently, commercial banks in Massachusetts are taxed at 11.4 percent. This rate was originally roughly equivalent to the combined levy on net income plus the tax on tangible property. As the tax on property has been phased out, the differential between taxation of banks and other corporations has increased. It could be argued that the bank tax rate should be reduced from 11.4 to 8.55 percent to make business taxation more equitable. However, reducing the bank tax for 1975 would cost about $5 million[2] and given the enormous demands on this state's fiscal resources, there is some question whether such a reduction should be given high priority at this time.

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[1]Alaska, California, Iowa, Minnesota, New York and Pennsylvania.

[2]Total revenue from the 11.4 percent levy on banks for fiscal 1975 is estimated at $20 million. Massachusetts Budget Recommendations for Fiscal 1975 House 1.

Table 12-2

Corporation Income Tax Rates by State,[a] January 1, 1974

State	Rate	Federal Tax Deductible	Special Provisions
Alabama	5	X	Financial Institutions, 6%.
Alaska	9.36[b]	—	—
Arizona	8[b]	X	Allows deduction of state income tax itself in computing state tax liability.
Arkansas	6[b]	—	—
California	9	—	Financial Institutions, 13%.
Colorado	5	—	—
Connecticut	8	—	Certain financial institutions, 3.2% on interest credited to savings accounts.
Delaware	7.2	—	—
Florida	5	—	$5,000 Exemption.
Georgia	6	—	—
Hawaii	6.435[b]	—	Capital Gains, 3.08%. Financial Institutions, 11.7%.
Idaho	6.5	—	$10 Filing Fee.
Illinois	4	—	$1,000 Exemption.
Indiana	5	—	Tax to rise to 6% by January 1977.
Iowa	10[b]	X	Financial Institutions, 8%.*
Kansas	6.75[b]	—	Banks, 7.25%. S&L's and Trusts, 6.75%.
Kentucky	5.8[b]	—	—
Louisiana	4	—	—
Maine	7	—	—
Maryland	7	—	Credit excess of franchise taxes over $40.
Massachusetts	8.55	—	Banks, 11.4%. Savings Institutions, 1.14% income and .057% deposits every 6 months. $5.76 per $1,000 tangible property.
Michigan	7.8	—	Financial Institutions, 9.7%.
Minnesota	12	—	Banks, 12%. $500 credit.
Mississippi	4[b]	—	—
Missouri	5	X	Financial Institutions, 7%.
Montana	6.75	—	—
Nebraska	3.25	—	—
New Hampshire	7	—	Additional net worth tax on financial institutions.
New Jersey	5.5	—	Savings institutions, 5%. Additional tax on net worth.

Table 12-2 (continued)

State	Rate	Federal Tax Deductible	Special Provisions
New Mexico	5	–	Financial institutions, 6%.
New York	9[b]	–	Financial institutions, 8%.
North Carolina	6	–	–
North Dakota	6[b]	X	Financial institutions, 7%.
Ohio	8[b]	–	–
Oklahoma	4	–	–
Oregon	6	–	Financial Institutions, 8%.
Pennsylvania	11	–	National and State banks, net worth tax. Thrift institutions, 11 1/2% net income. Private bankers, 1% gross receipts.
Rhode Island	8	–	–
South Carolina	6	–	Banks, 4.5%. Savings and Loans, 8%.
South Dakota	–	–	Financial Institutions, 5 1/2%.
Tennessee	6	–	Savings and Loans, 7%.
Utah	6	X	–
Vermont	6	–	Financial Institutions, 6%. franchise tax less corporate income tax paid.
Virginia	6	–	–
West Virginia	6	–	–
Wisconsin	7.9[b]	X	Financial Institutions, net worth tax.

[a]Nevada, Texas, Washington, and Wymoning do not have corporate income taxes.

[b] If the rate is progressive, then the maximum rate appears in the table.
In most states the maximum becomes effective at low levels of net income:
$5,000 in Mississippi, $6,000 in Arizona and Wisconsin, $15,000 in North Dakota,
and $25,000 in Alaska, Arkansas, Hawaii, Kentucky, Kansas, Maine and Ohio.
The exception to the rule is Iowa where the maximum rate for all corporations
and financial institutions becomes effective at $100,000.

X denotes "yes"; – denotes "no."

Other areas of particular concern in the area of business taxation is the burden on the life insurance industry and the taxation of electric utilities. The high levies on the utilities are due primarily to the local property taxes and therefore utilities will benefit from any reduction in dependence on property tax revenues. On the other hand, the life insurance dilemma is a result of special provisions of the Massachusetts' state tax law and therefore requires further discussion.

Life Insurance

Since 1961, Massachusetts has risen from 5th to 1st place among the major insurance states in terms of the burden on domestic insurance companies. As shown in Table 12-3, Massachusetts' burden is 50 percent higher than that in Connecticut, the state with the second highest burden. Table 12-4 shows the dramatic growth in revenues over the last ten years.

Insurance is an important industry in Massachusetts where domestic insurance companies account for about 22,000 jobs. Imposing such an excessive burden (on the domestic companies) compared to other states can only harm the Massachusetts economy in the long run. There is some evidence that the competitive disadvantage of the domestic companies has already tended to limit their expansion in this state. Data on annual percentage increase in assets reveal that while the domestic industry had been keeping pace up through 1968, since that time Massachusetts companies' growth have lagged behind that for the nation. (See Figure 12-1). The evidence seems to indicate that the tax burden on Massachusetts domestic insurance companies should be reduced to insure that Massachusetts receives its share of expansion in the insurance industry.

Effective taxation of life insurance companies is a very difficult proposition for two reasons. First, retaliatory tax laws prevent states from

Table 12-3

Comparative Impact of Taxes on Domestic Life
Insurance Companies:
Massachusetts and Selected States: 1971

(Mass. = 100) Under Tax Laws of:	Tax Liability on Mass. Companies
MASSACHUSETTS	100.00
Connecticut	66.98 (29.99)
New York	30.28 (25.44)
New Jersey	28.69
Wisconsin	22.57
Rhode Island	20.56
Maryland	19.96
Indiana	19.79
Pennsylvania	19.79
North Carolina	19.57
Ohio	15.56
Texas	8.57
Illinois	4.74
Michigan	2.04
California	0.00
Florida	0.00

Note: Figures in parentheses show relative levies as of
January 1, 1973. Sales and property levies are
not included in the above table.
No comparative tax studies have been made to
show the relative position of Massachusetts
casualty insurance companies.

Source: Massachusetts Taxpayers Association, Massachusetts
Tax Primer, 1973 Edition, p. 27.

Table 12-4

Life Insurance Tax Revenues, 1965-75

	Tax Revenues			
	(millions)			
Year	Total Insurance	Life Insurance Excise	Other	Life Insurance Taxes as a Percent of Total Insurance Taxes
1975	$ 70.0	$ 37.0	$ 33.0	$ 52.9
1974	68.0	33.3	34.7	49.0
1973	66.1	25.6	40.5	38.8
1972	69.0	29.3	39.7	42.4
1971	46.2	12.9	33.3	27.9
1970	39.1	11.0	28.1	28.1
1969	32.1	9.6	22.5	29.9
1968	29.4	9.2	20.2	31.3
1967	28.3	9.0	19.3	31.8
1966	25.7	8.3	17.4	32.3
1965	29.6	10.2	19.4	34.5

Sources: Massachusetts Financial Report 1965-1973 (General Fund, Analysis of Tax Receipts)
Massachusetts Budget Recommendations 1974 and 1975.

LIFE INSURANCE COMPANY ASSETS

Percentage Increase Over Prior Year

1967 - 1973

■ All U.S. Life Insurance Companies

▧ Mass. Domiciled Life Insurance Companies

Percent
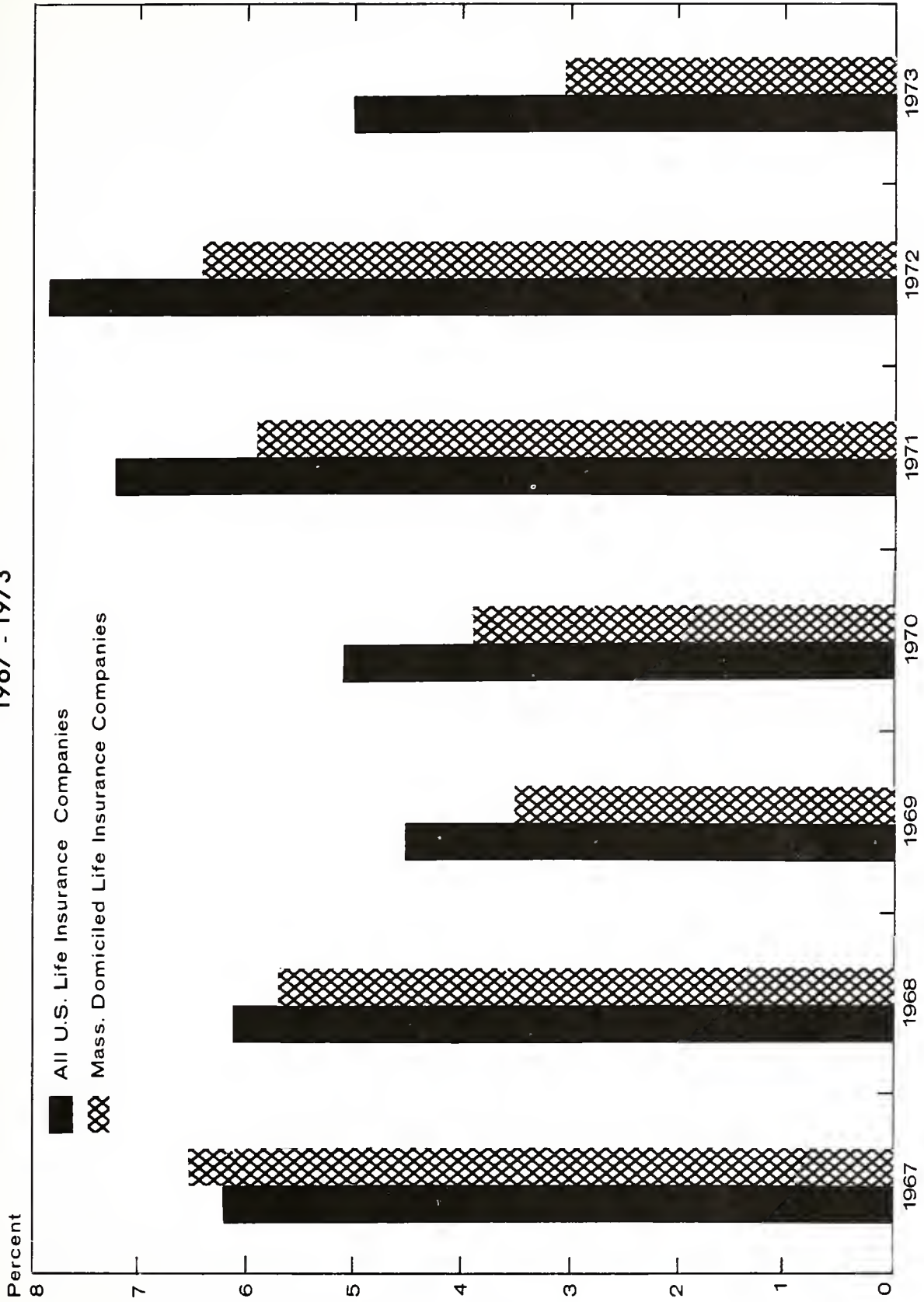
Source: Massachusetts Domiciled Insurance Companies Study

following independent tax policies.[1] Any tax levied on foreign insurance

companies in, say, Massachusetts will result in increased levies on Massachusetts'

companies in the states where the foreign companies are chartered.

The second difficulty in taxing insurance companies is the problem of

determining net income. On the one hand, not all of investment income should

be taxed, since a portion is required to meet contractual obligations to policy

holders. If taxation is to be based on net income some method must be devised

for calculating the appropriate tax-exempt reserves. On the other hand, net

income from investments represents only one portion of total life insurance

profits. The other major source of income is "underwriting" profits resulting

from the fact that the life expectancy tables upon which premiums are based

usually understate actual life expectancies.[2] Therefore, net taxable income

must include some portion of premium as well as investment income with allowances

for required additions to reserves and deductions for benefit payments, insurance

losses and other ordinary business expenses.

Massachusetts currently taxes both premium and investment income of domestic

life insurance companies, while it taxes only the premium income of foreign

companies. The tax is complex and consists of the following components:

1) Tax on premiums of both foreign and domestic insurance companies –

2 percent.

2) Surtax:

Domestic premiums – 14 percent;

Foreign premiums – 44 percent;

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[1] Massachusetts is actually the first state to have instituted the retaliatory provision, Chapter 252, Act of 1856.

[2] Joseph A. Pechman, Federal Tax Policies (Washington, D.C. The Brookings Institution, Revised Edition, 1971) p. 135.

Table 12-5

Taxes on Life Insurance Companies, 1975

		(millions)
Domestic Insurance Companies		$ 21.8
Premium tax @ 2%	$ 4.9	
Surtax:		
On own premiums	0.7	
On premiums of foreign companies	1.5	
Gross investment income tax	14.7	
Foreign Insurance Companies		15.2
TOTAL		$ 37.0

Source: Based on data in memo from Robert H. McClain, Jr.,
         Fiscal Advisor, Joint Committee on Taxation,
         August 27, 1973.

3) Gross investment income tax - 1 percent.

The tax based on foreign premiums was a compromise suggested by the
Massachusetts insurance companies. To avoid a retaliatory 14 percent surtax
in other states, the domestic companies requested that the proposed 1969
universal 14 percent surtax be amended to allow them to pay a surtax large
enough to cover what the foreign companies would have paid.

The projected 1975 revenues from the various components of the multiple
levy are summarized in Table 12-5. The gross investment income tax is by far
the major source of life insurance revenue, nearly twice as large as the
combined premium and surtax.

The precise nature that the tax reduction and reform should take is
difficult to determine. The optimal solution, of course, is to have some
Federal legislation outlawing state retaliatory laws. Massachusetts (and all
other states) could then levy a tax on the net income of both domestic and
foreign companies apportioned on the basis of the share of total sales or
personnel within Massachusetts. However, for the foreseeable future state
tax policy is constrained by the retaliatory laws and in Massachusetts this
means that any revenue in excess of the 2 percent excise must be
raised from the domestic companies.

A reasonable solution which would reduce the competitive disadvantage
of domestic companies while at the same time move towards a sensible rationale
for insurance taxation would be as follows: 1) maintain the premium excise
of 2 percent on the policies of both domestic and foreign companies and
2) replace the gross investment tax with the corporation levy of 8.55 percent

payroll tax as low as 1% would yield revenues of about $200 million.[1]

Massachusetts law very similar to the new Connecticut legislation where

all premiums are taxed at 2 percent and net income is taxed at 8 percent. In

Connecticut, the percentage of net income attributable to activity within

the state is based on sales only, Massachusetts might want to consider a

two-factor allocation formula based on some combination of sales and personnel.

However, adopting the two-factor formula would be another provision making the

Massachusetts tax slightly higher than the Connecticut tax.

Nevertheless, any form of this proposal would reduce by almost 50 percent

taxes on domestic insurance companies and enable domestic companies to compete

more effectively with their foreign counterparts. This reform would probably

cost about $10 million to effect, which seems a reasonable price to encourage

the expansion of this state's important insurance industry.

Unemployment Compensation

Although unemployment taxes are not used for general revenue purposes, they

are often cited as especially burdensome in Massachusetts compared with other

states. (See Table 12-6). The tax is levied on the employer based on the first

$4,200 of taxable wages paid to each employee during the calendar year. The

standard rate is 2.7 percent; however, the rate may be more or less depending

upon the employer's rating in stabilizing his employment or upon the amount in

the state fund. The maximum rate is 5.1 percent and the minimum rate is

0.5 percent. In 1974, unemployment compensation taxes amounted to $274 million,

exceeding corporation excise tax revenues for that year of $236.

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[1] The income as defined for Federal corporation income tax purposes consists
of three parts. Phase I is that portion of investment income which is not
needed to guarantee ultimate payment of the insurance policies. Phase II
represents gains from underwriting operations. Phase III is the amount distributed
to stockholders. Taxable income is then one of the following two alternatives.
If Phase II income is less than Phase I then taxable income equals Phase II plus
Phase III. If Phase II income exceeds Phase I then taxable income equals
Phase I plus 50 percent of the excess of Phase II over Phase I plus Phase III.

Table 12-6

Average Employer Contribution Rate for Unemployment Insurance, 1973:
14 Largest States and Connecticut

State	Percent
Massachusetts	3.3%
Michigan	3.1
Florida	3.0
California	2.9
New Jersey	2.4
Connecticut	2.3
New York	2.3
Illinois	1.8
Pennsylvania	1.6
Wisconsin	1.5
Missouri	1.2
Ohio	1.2
Indiana	1.0
North Carolina	0.8
Texas	0.5

Source: U.S. Bureau of the Census, Statistical Abstract of the United States: 1974. (95th edition.) Washington, D.C., 1974, Table No. 465, pp. 292-293.

As shown in Chapter 2, the high costs of unemployment compensation in Massachusetts can be largely attributed to the high level of unemployment and liberal eligibility for benefits. Reform of the unemployment compensation program would contribute significantly towards alleviating the heavy tax burden on business in this state.

Raising Additional Revenue from Business Taxes

The overall level of business taxation is quite high in Massachusetts (see Chapter 2) and introducing a new business tax into the present structure would result in an excessively burdensome business levy. However, any reduction in reliance on the local property tax as a component of tax reform would reduce taxes on businesses as well as individuals. Some type of business tax increase could be introduced to partially offset business property tax reductions, leaving a net reduction in taxes paid by business. Some of the options are as follows:

Raising Corporate Excise Rate. The current tax rate on corporate profits is 8.55 percent and this tax was scheduled to yield $240 million in fiscal 1975. Of the industrialized states, only New York and California with 9 percent and Pennsylvania with 11 percent have rates higher than Massachusetts. Raising the Massachusetts rate to 9 percent would yield only $11 million. Increasing the rate to 11 percent would increase revenues by about $58 million, but would have the unfortunate consequence of making our corporate tax rate one of the highest in the nation.

Payroll Tax. An alternative mechanism for increasing business taxes would be the introduction of a statewide levy on business payrolls. A payroll tax as low as 1 percent would yield revenues of about $200 million.[1]

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[1]Nonagricutltural payrolls in Massachusetts amount to about $20 billion, based on nonagricultural employment of 2.4 million, average weekly hours of 40.1 and average hourly earnings of $4.10.

The advantages of the administrative simplicity, the broad base and consequent low rate of a payroll tax are offset by two major considerations. First, the long-run distributional impact of a payroll tax may be quite regressive if the tax is either shifted backwards to the employers in terms of lower wages or forward in higher prices for goods and services. Second, if the burden of the tax is actually borne by employees, central city residents may actually lose under a payroll tax even if the receipts are used to finance increased state aid for property tax reduction. For example, Boston accounts for about 27 percent of state payrolls and therefore would contribute about $54 million towards a state payroll tax. About 60 percent of Boston employees are commuters, therefore Boston residents working in Boston would pay $22 million. Under a $200 million EMG distribution, Boston would receive back $42 million for property tax reduction, of which approximately 50 percent would go to individuals with the rest going to business. Therefore, Boston residents pay about $22 million and receive $21 million in property tax relief. Boston business, on the other hand would be net beneficiary of net $21 million in property tax relief.

Eliminate the Investment Tax Credit. Under the Massachusetts corporation income tax firms are given a 3 percent investment tax credit for purchases of machine or replacement parts. This credit costs the state about $22 million in foregone revenues each year. Eliminating this credit might be less visible and therefore less harmful to the business climate than raising the corporation income tax rate.

Sales Tax on Machinery. Another way to raise more taxes from business would be to broaden the sales tax base to include purchases of machinery and replacement parts. Inclusion of these items under a 3 percent sales tax would yield an

additional $45 million in revenues and almost $60 million under a 4 percent tax.[1]

There are logical reasons both for and against the taxation of machinery purchases. On the positive side, the tangible property component of the corporate excise tax has been reduced significantly in the last few years and is scheduled to be phased out. Therefore, the sales tax could be used as a replacement of the excise on tangible property. On the other hand, Massachusetts has extended through 1978 the 3 percent investment tax credit on tangible property. It seems inconsistent to introduce a sales tax at the same time the state subsidizes the purchase of the same piece of equipment.

Summary

The 8.55 percent corporate excise is the most important source of business tax revenue raising about $240 million in 1975. An additional $122 million is raised through insurance companies, banks and public utilities. Massachusetts' taxes on insurance companies are significantly higher than in other states; therefore, reduction of the tax burden on the insurance industry would reduce a competitive disadvantage of domestic insurance companies.

Business taxes in Massachusetts are quite high and increasing taxes on the business sector under the current structure would result in an excessive business tax burden. However, it may be desirable to offset reductions in business taxes due to overall property tax reform by increasing business levies. Some possible options include raising the corporate excise rate, eliminating the investment tax credit, introducing a statewide payroll tax or broadening the sales tax base to include purchases of machinery and replacement parts.

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[1] Total Massachusetts expenditure on plant and equipment for 1975 was estimated by applying the ratio of Massachusetts to total U.S. employment to the available data for total U.S. new plant and equipment expenditures. The U.S. data was then used to separate expenditures on plant from purchases of equipment. Massachusetts' expenditure on machinery and replacement parts for 1975 is estimated at $1.495 million. Sources: State Tax Guide, Commerce Clearing House Inc. 1974, pp. 6091-4,5; column 1: Employment and Earnings 1939-72, U.S. Department of Labor, Bureau of Labor Statistics; column 2: Handbook of Labor Statistics, U.S. Department of Labor, Bureau of Labor Statistics; column 4: Statistical Abstract of the United States, 1973, U.S. Department of Commerce, table 767, p. 476; column 6: McGraw-Hill Survey: Business' Plans for New Plants and Equipment, 1974-77. McGraw-Hill Publication Company, Economics Department, table III, p. 12.

Chapter 13

GENERAL SALES TAXES AND SELECTIVE EXCISES

Alicia H. Munnell

Massachusetts relies less heavily on sales and excise taxes than almost any other state in the nation.[1] The Massachusetts general sales tax revenues are small both because the rate is below that of other industrialized states and because a large portion of retail sales is excluded from the base. Massachusetts' tax on gasoline, the largest of the special excises, is also well below that of other states. This combination of low existing rates and narrow bases makes the general sales and selective excises a fertile area for raising additional revenues.

General Sales Tax

All but five states[2] have a general sales tax, with rates ranging from a low of 2 percent in Nevada and Oklahoma to 6.5 percent in Connecticut. Massachusetts introduced in 1966 a 3 percent tax on the retail sales of tangible personal property.[3] The most outstanding aspects of the present Massachusetts tax are the low rate and the extensive exemptions from the tax base. The exemptions include food, clothing,[4] medicine and all items subject to selective excises such as gasoline. alcohol, cigarettes and meals (See Table 13-1). Because of the present low rate

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[1]In 1973, the exceptions were Alaska, Delaware and Oregon, all three of which did not have a general sales tax. U.S. Department of Commerce, Bureau of the Census, State Tax Collections in 1973.

[2]Oregon, Delaware, Montana, Alaska and New Hampshire did not have general sales taxes as of 1973.

[3]At the same time, a use tax was also adopted. Massachusetts was quite late in adopting these taxes since by 1966 sales and use taxes were in effect in 43 other states as well as the District of Columbia.

[4]Any article of clothing with a sales price over $175 is not exempt.

Table 13-1

Massachusetts General Sales Tax Base, Fiscal 1975
(millions of dollars)

Total Retail Sales, Massachusetts		$15,406
Less: Exemptions - Food	$ 3,167	
Eating & Drinking	1,217	
Apparel	940	
Gasoline	955	
Liquor	293	
Cigarettes	284	-6,856
Plus: Miscellaneous Services,[a]		+ 193
General Sales Tax Base		$ 8,743

[a]Services directly connected with the sale of tangible property such as printing, etc.

Source: U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Monthly Retail Trade Report, February 1974. Data for fiscal 1973 were increased by 19.8% to arrive at fiscal 1975 levels for total retail sales. The 19.8% figure represents the forecasted increase in durable and nondurable consumption at the national level from fiscal 1973 to fiscal 1975. The distribution of retail sales by category is based on 1973 distribution for the Northeastern states. The food category was reduced by 12.5% to adjust for the sale of nonfood items. The estimate of cigarette sales is based on forecasted cigarette excise tax revenue for fiscal 1975.

and all the exemptions, the sales tax could be an excellent source of additional revenue. However, any substantial increase in the sales tax should be accompanied by credits for low income individuals. Some of the options available are as follows:

Base Changes

1. Excise items: For administrative simplicity some of the items subject to the special excise tax should be included under the general sales tax. This is particularly true for cigarettes which are sold simultaneously with other goods and some arguments can be made for including alcohol and meals. In the case of gasoline, it is probably more efficient to raise the excise tax than to extend the general sales tax.

2. Necessities: Food and clothing are excluded from the sales tax base because these items constitute the major expenditures of low-income individuals and including them would make the sales tax very regressive (see Table 13-2).[1] Any major change in the tax treatment of necessities—especially food—should be accompanied by tax credits for low-income individuals.

   a. Apparel only: There is some justification for limiting the extension of the tax base to apparel. Apparel is a much smaller portion of low-income expenditure than food and therefore would have less impact on the poor. Furthermore, the price of food has risen so dramatically in the last year that introducing a tax on food might not be politically feasible at this time. Including

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[1] See D.G. Davies, "Progressiveness of a Sales Tax in Relation to Various Income Bases," *American Economic Review*, December, 1960, 50, p. 987-95. Jeffrey M. Schaefer, "Clothing Exemptions and Sales Tax Regressivity," *American Economic Review*, September, 1969, 59, p. 596-599.

Table 13-2

Consumption Patterns by Income Level; Boston, Autumn 1973

	Lower Budget	Intermediate Budget	Higher Budget
Food	34.4%	29.0%	25.5%
Food at home	30.2	24.9	20.6
Food away from home	4.2	4.1	4.9
Housing	26.2	33.8	36.3
Transportation	7.5	8.8	8.7
Clothing	9.2	8.4	8.8
Personal Care	2.9	2.4	2.3
Medical Care	8.6	5.4	4.0
Other consumption	11.2	12.2	14.4
TOTAL	100.0	100.0	100.0
Total Budget	$8,988	$14,893	$21,986
Taxes	1,531	2,985	5,082
After-tax Income	7,457	11,908	16,904

Source: U.S. Department of Labor, Bureau of Labor Statistics,
Autumn 1973 Urban Family Budgets and Comparative Indexes
for Selected Urban Areas (June 16, 1974).

apparel in the sales tax base would increase revenues by $28 million at the current 3 percent rate.

    b. Food and apparel: Including both food and apparel in the tax base would raise revenues by $123 million. However, a tax credit would have to be introduced into the personal income tax to avoid placing excessive burden on low-income families.[1] A vanishing credit of $20 per exemption (exclusive of age or blindness) for returns with income under $6,000 declining to zero by the time income reaches $10,000 would cost about $35 million.[2] This means that the net gain in revenues of including both food and apparel, plus introducing a tax credit, would be $88 million ($123 - $35).

3. Services: Under the present Massachusetts law, sales of services are not taxed, with the exception of room rentals at hotels and motels, which are taxed under the 5.7 percent room occupancy tax. If the general sales tax were extended to all services except miscellaneous business services (such as advertising, equipment rental, consulting services and services to offices) approximately $56 million could be raised at the current 3 percent tax rate. Table 13-3 summarizes the revenue yield from taxing services under the general sales tax.[3]

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[1]Massachusetts already has a limited credit of $4 for taxpayer, $4 for spouse and $8 for each exemption for those returns with income below $5,000. In addition, six other states (Colorado, Hawaii, Idaho, Nebraska, New Mexico, and Vermont) and Washington, D.C. have some type of credit to offset the regressivity of the sales tax.

[2]The credit would equal $20 - .005 [income (up to $10,000) - $6,000] so that the taxpayer would lose $5 of credit for each additional $1,000 of income. The credit would amount to $20 at $6,000, $15 at $7,000, $10 at $8,000, $5 at $9,000 and zero at $10,000.

[3]These estimates were arrived at by increasing the 1967 Massachusetts figures for sales for services in line with the DRI estimates for nationwide personal consumption of services and applying the tax rate to these 1975 projections.

Table 13-3
General Sales Tax on Services
Fiscal 1975

	Yield at 3%	Yield at 4%	Yield Under Room Occupancy Tax
Hotels and Motels	$ 3.2	$ 4.2	$6.0
Tourist Camps, etc.	0.7	0.9	n.a.
Personal Services	21.9	29.1	n.a.
Auto Repair Services	12.1	16.2	n.a.
Misc. Repair Services	6.2	8.2	n.a.
Movies	4.1	5.4	n.a.
Amusements	7.5	10.0	n.a.
Total	$55.7	$74.0	

The room occupancy tax is estimated to bring in $6 million in fiscal
1975. If this tax were reduced to the lower general sales tax rate, ap-
proximately $2.8 million in revenues would be lost at 3 percent ($1.8 million
at 4 percent). Therefore, the net gain from including services under the gene
ral sales tax at 3 percent would be $52.9 million rather than $55.7 million
($72.2 rather than $74.0 at 4 percent).

Rate Changes

As shown in Table 13-4 Massachusetts is the only industrialized state
with a sales tax rate of less than 4 percent. Therefore, it would bring the Massa-
chusetts tax more in line with other states if the rate were raised by one
percentage point to 4 percent. At present levels, this rate adjustment would in-
crease revenues by $87 million from $262 to $329 million.

Rate and Base Changes

1. If the items subject to the special excises (except gasoline), ap-
   parel, and services were included in the tax base and the rate were
   raised to 4 percent, then total sales tax revenues would more than double
   from its present level of $262.

Table 13-4

STATE GENERAL SALES TAX RATES, JULY 1, 1973
(Percent)

	2.5	3	3.5	4	4+	5	Over 5
da¹ oma	Nebraska	Arizona Arkansas Colorado Georgia Idaho Iowa Kansas Louisiana Massachusetts Missouri North Carolina Vermont Virginia West Virginia Wyoming	Tennessee	Alabama Florida Hawaii Illinois Indiana Maryland Michigan Minnesota New Mexico New York North Dakota Ohio South Carolina South Dakota Texas Utah Wisconsin	California (4-¾) Washington (4-½)	Kentucky Maine Mississippi New Jersey Rhode Island District of Columbia	Pennsylvania (6%) Connecticut (6.5%)
....2	 1	 15	 1	 17	 2	 6	 2

¹des the one percent mandatory county tax.

e: ACIR staff compilation based on Commerce Clearing House, *State Tax Reporter.*

2. If both food and apparel as well as the special excise items were included in the base and the rate were raised to 4 percent, revenues would increase from $262 to over $600 million. However, credits to offset the regressivity would cost about $35 million, lowering the net to increase.

In short, the sales tax is a source of large additional revenues, which could be raised by expanding the base, raising the rate or some combination of the two. However, any reform that includes food in the base must be accompanied by tax credits to offset the regressivity.

Selective Excise Taxes

Gasoline

All states tax gasoline at a rate between 5¢ and 10¢ per gallon. The rate for the gasoline tax in Massachusetts is 7.5¢, which is lower than most other New England states — Maine, New Hampshire, and Vermont levy 9¢ and Connecticut 10¢ (See Table 13-5).

Although some have considered including gasoline in the general sales tax base, most experts now agree that it would be preferable to raise additional revenue simply by raising the excise tax.[1] According to this state's constitution, all revenues from taxes on fuels used to propel vehicles on public highways must be credited to the Highway Fund.[2] Separate accounting would significantly increase the administrative potential of the sales tax.

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[1] Special Commission to Develop a Master Tax Plan, Tentative Proposals, and Second Interim Report, Interim Revenue Program for the Commonwealth (February 1971).

[2] A constitutional amendment was passed in November 1974 which permitted the use of Highway Fund revenues for mass transit in addition to highway-related activities. However, it still requires an act of the legislature for funds appropriation.

Table 13 –5

STATE GASOLINE TAX RATES, JULY 1, 1973[1]
(Per gallon)

Under 7¢	7¢	7½¢	8¢	8½¢	9¢	10¢
Hawaii (5¢)[*]	Alabama[1]	Georgia	Alaska	Arkansas[1]	Kentucky	Connecticut
Nevada (6¢)	Arizona	Illinois	Delaware[2]	Idaho	Maine	
Oklahoma (6.58¢)[1]	California	Massachusetts	Florida	Nebraska	Maryland	
Texas (5¢)[1]	Colorado		Indiana	West Virginia	Michigan[1]	
	Iowa[1]		Louisiana		Mississippi[1]	
	Kansas[1]		New Jersey		New Hampshire	
	Minnesota		New York[1]		North Carolina	
	Missouri		Pennsylvania		Vermont[1]	
	Montana[1]		Rhode Island		Virginia	
	New Mexico		South Carolina[3]		Washington	
	North Dakota		Dist. of Columbia			
	Ohio					
	Oregon					
	South Dakota					
	Tennessee[1]					
	Utah					
	Wisconsin					
	Wyoming					
TOTAL .. 4	18	3	11	4	10	1

[*]Excludes the following county rates, determined by the county in which the fuel is used Honolulu, 3½¢, Hawaii, 3¢, Maui, 5¢ and Kauai, 4¢

[1]In most states diesel fuel is taxed at the same rate as gasoline. The States which tax diesel fuel at a different rate are: Alabama, 8¢, Arkansas, 9.5¢, Iowa, 8¢, Kansas, 8¢, Michigan, 7¢, Mississippi, 10¢, Montana, 9¢. New York, 10¢, Oklahoma, 6 5¢, Tennessee, 8¢; Texas, 6.5¢ In all but a few states liquified petroleum is taxed at the same rate as gasoline. Vermont does not tax diesel fuel or liquified petroleum.

[2]Increased from 8¢ to 9¢ effective from August 1, 1973 until June 30, 1974

[3]The tax on gasoline sold, consigned, used, shipped, or distributed is 8¢ per gallon. The tax on gasoline imported or stored in South Carolina is 7.67¢ per gallon.

Source: ACIR staff compilation based on Commerce Clearing House, *State Tax Reporter.*

Since Massachusetts' gasoline excise tax rate is quite low, this tax
can easily be raised as high as 9¢ per gallon without any severe repercus-
sions. Raising the price of gasoline to the consumer would also encourage
conservation of energy consumption. The distributional implications are
probably not regressive given that car ownership increases dramatically
with income.[1] Estimates for 1975 indicate that each 1¢ increase in this
tax would yield an additional $23 million in revenues.[2]

Cigarettes

While all states tax cigarettes, the tax in Massachusetts of 16¢ per
pack is one of the highest in the nation. Therefore, it is probably inad-
visable to increase the tax any further. Nevertheless, as argued earlier,
cigarettes should be taxed under the general sales tax as they are in most
other states.[3] (See Table 13-6).

Alcohol

Currently, an excise tax is imposed upon the sale of alcohol by manu-
facturerers, wholesalers and importers. Alcoholic beverages for on premise
consumption are taxed only if they are served as part of a meal. The tax
system would be simplified if all alcohol were taxed under the general sales
tax regardless of whether it were consumed on or off the premise and with or
without food.[4]

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[1]1972 Automobile Facts and Figures, p. 38. The percentage of households
with at least one car increases from 43.6% for households with income under $3,000
to 96.6% for incomes over $15,000.

[2]This estimate is based on Budget estimates for 1975 of projected revenues
of $173.1 million. Dividing this revenue figure by 7.5¢ yields the number of
gallons for fiscal 1975 - 2.308 million. On this base every 1¢ per gallon in-
crease yields $23 million.

[3]State Tax Guide. Only 14 of the 45 states with sales taxes exempt
cigarettes from the general levy.

[4]This statement is based on the assumption that the meals tax is replaced
by the general sales tax.

Table 13-6

STATE CIGARETTE TAX RATES, JULY 1, 1973
(Cents per standard pack of 20)

or less	8¢	9¢	10¢	11¢	12¢	13¢	14¢ or more
of Col. (6¢)	Alaska	Missouri	Arizona	Kansas	Alabama	Iowa	Arkansas (17½¢)
ia (6¢)	Hawaii[1]	Oregon	California	Louisiana	Georgia	Nebraska	Connecticut (21¢)
cky (3¢)	Utah	Idaho (9 1/10¢)	Colorado	Michigan	Illinois	Oklahoma	Delaware (14¢)
and (6¢)	Wyoming		Nevada	Mississippi	Montana	Rhode Island	Florida (17¢)
Carolina (2¢)				New Hampshire[2]	New Mexico	Tennessee	Maine (14¢)
Carolina (6¢)				North Dakota	South Dakota		Massachusetts (16¢)
ia (2½¢)					Vermont		Minnesota (18¢)
					West Virginia		New Jersey (19¢)
							New York (15¢)
							Ohio (15¢)
							Pennsylvania (18¢)
							Texas (18½¢)
							Washington (16¢)
							Wisconsin (16¢)
.... 7	 4	 3	 4	 6	 8	 5	14

i with a rate of 40% of wholesale price is estimated at 8¢.
Hampshire with a rate of 42% of retail price is estimated at 11¢.

ACIR staff compilation based on Commerce Clearing House, *State Tax Reporter*.

Total revenues estimated for the alcohol excise taxes for fiscal 1975
are $69.0 million. With liquor sales of $293 million, the effective tax rate
is about 24 percent.[1] Massachusetts taxes are about average for the various
states; therefore, it is questionable whether the alcohol excise taxes should
be raised. However, alcohol should be brought under the general sales tax
as is the practice in almost all other states.

Meals

The excise amounts to 5 percent on meals of $1 or more and on all sales
of alcoholic beverages for on-premises consumption. If meals are taxed under
the general sales tax at 3 percent, there would be a net revenue loss of
$21.6 million. Retaining a 2 percent meals tax would yield a combined levy
of 5 percent on meals, although the revenues for the meals tax would be
reduced from $54 to $21.6 million.

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[1]Actually, the effective rate is an average of the following specific
tax rates.

	Rate per Gallon
Cider containing more than 3% but not more than 6% alcohol by weight	2 cents
Still wine, including vermouth	40 cents
Champagne and sparkling wines	50 cents
Other alcoholic beverages containing 24% or less of alcohol by volume	80 cents
Alcoholic beverages containing more than 24% but not more than 50% alcohol by volume	$2.95
Each proof gallon of alcoholic beverages containing more than 50% alcohol by volume, or alcohol	$2.95
The beer tax is $2.40 per barrel of 31 gallons (or fraction)	
A 14% surcharge is added to these rates.	

Summary

  In Massachusetts, the sales tax is an underutilized source of revenue.
If the general sales tax base were extended to include apparel and services and
the tax rate were raised to 4 percent, then general sales tax receipts would increase
from $262 to $461 million. Raising the gasoline excise tax by 1¢ per gallon
would yield an additional $23 million.

Part IV ALTERNATIVES FOR REFORM

Chapter 14

OPTIONS FOR FISCAL STRUCTURE REFORM

Alicia H. Munnell, Richard F. Syron and Steven J. Weiss

Options for fiscal structure reform in Massachusetts are limited because of the generally high burden of total state and local taxes. Virtually everyone agrees that local property taxes should be reduced, but the harmonious unanimity about this goal degenerates into discordant controversy on the question of how to pay for local property tax relief. There is still no such thing as a free lunch, and there is no way that any change in the state's fiscal structure can be universally painless. No structural shift can reduce the overall state-local tax burden in Massachusetts, but changes can be made to mitigate some of the adverse effects of the existing system. Using the statistics and analysis developed in Parts II and III, this chapter evaluates the impact of alternative changes in the state's fiscal system. The analysis is based on total tax revenues projected for fiscal 1975, assuming that no new state revenues are used to substitute dollar for dollar for local property taxes.

This chapter begins with a brief statement of objectives for fiscal structure reform and a review of reasonable options that are available to attain these objectives. Several specific possible changes in sources and uses of state revenues are then discussed, and it is shown how the impact of these changes can be traced down to changes in local tax rates and individual tax burdens. Finally, examples of three different types of fiscal structure reform programs are described, and five specific plans are presented and evaluated in order to illustrate how reform options can be combined to form consistent reform "packages." The main purpose of this work has been to develop specific components of structural reform which can in fact be combined in many alternative ways.

The components and example plans were developed subject to the constraints that: total state and local revenue remains the same as projected for fiscal 1975; no tax source is utilized to the extent that Massachusetts would be drastically out of line with other states; and that any plan assembled from these components will reduce dependence on local property tax but will not drastically change the incidence of total state and local taxes on most income groups.

Objectives and Available Options

Generally accepted objectives for fiscal structure change in Massachusetts include the following:

1. To reduce dependence on the local property tax, thereby ameliorating excessive local rate differentials and spreading the burden of tax-exempt institutions more equitably across the state;

2. To develop a tax structure that is more responsive to economic growth, thus reducing the pressure for recurrent tax rate increases;

3. To foster economic growth, particularly in older central cities with high levels of unemployment and above-average concentrations of poor and disadvantages persons.

Possible Sources of New State Revenue

The most fertile potential source of new state tax in Massachusetts is the retail sales tax, the only existing state tax that is significantly under-utilized relative to the national average. A larger sales tax would enable Massachusetts to export a greater portion of its total tax burden and also derive some revenues, directly or indirectly, from tax exempt institutions. However, a large increase in sales taxation would significantly increase the regressivity of the overall state-local tax structure unless it were accompanied by introduction of new credits on the state income tax. On the other hand, relative to property taxes, the sales tax offers the advantage of greater responsiveness to economic growth.

Revenue responsiveness to economic growth can best be achieved, however, through the individual income tax, and this advantage is heightened significantly with a graduated rate structure. Pressure for future rate increases would therefore be minimized if a graduated income tax were included as part of a reform package. Also, of course, the overall regressivity of the present structure would be reduced.

A state excise on payrolls would be a productive source of new revenues, even at a very low rate, and it would also be responsive to economic growth. Disadvantages of a payroll levy are clear, however; it is not a conventional state revenue source, and its enactment in Massachusetts would not be good for the state's business tax image. Nonetheless, it could be an acceptable part of a comprehensive reform package which yields large gains to business through general property tax reduction. In this context, a low-rate payroll levy paid by employers might be more acceptable than a compensating increase in an existing business tax.

A statewide property tax levied at a uniform rate on state-determined equalized valuation of cities and towns is another possible new state revenue source. Assuming that revenues raised by such a tax are used to substitute for local property taxes, existing rate disparities would be reduced, and part of the burden of exempt property would be shared by all localities. However, as noted earlier, any shift from local to statewide property taxation would have to be gradual, in order to avoid disruptive short-run changes in real estate values.

Alternative Uses of New State Revenue

New state revenues can be used to reduce local property taxes either by increasing state aid to local governments or by state takeover of financial responsibility for functions now funded locally. It would be feasible to require that specific new state revenues be used for these purposes. In order to assure

that new state aid funds actually bring about local property tax relief, it may

be desirable for the state to monitor local governments' use of new aid funds,

or to condition increased aid with provisions designed to bring about expenditure

control.[1]

New state revenues could be used most effectively to equalize local

property tax rates and burdens by funding an expanded program of equalizing

municipal grants (EMGs). This type of program channels aid to cities and

towns where property tax burdens are most severe, and it is a very equitable

and straightforward way to distribute state aid for general municipal services.

Comprehensive reform of school finance, funded partly by a statewide

property tax and partly by increases in existing state taxes, could also

provide some equalizing local property tax relief. Since the bulk of present

state aid goes to education, this is not so urgent a need as increased aid

for nonschool functions, but it is desirable on other equity grounds and could

be required as a result of a legal challenge to the present system. Short of

comprehensive school finance reform, funding of existing school aid programs

could be increased as an alternative means of substituting new state revenues

for local property taxes. However, only a comprehensive revision, involving

a shift from present reimbursement arrangements to an allocation-type approach

with prior funding, offers advantages in terms of improved expenditure control.

Other ways to substitute state revenues for local property taxes are

state takeover of certain costs presently assessed on cities and towns and

reimbursements to localities for state-mandated property tax abatements. A

fiscal structure reform package could also include internal changes in state

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[1]For example, a locality's aid could be reduced by some fraction if its
property taxes increased more than a prescribed percentage; or, property tax
increases in excess of some prescribed percentage could be permitted only after
a local referendum. For a discussion of some recent proposals to limit tax
increases, see Leon Rothenberg, "A New Look in State Finances: Tax Reduction
and Restructured Tax Systems," National Tax Journal, Vol. XXVII, No. 2 (June
1974), pp. 179-80.

taxes; in some of the examples described below two such uses are included,

namely an enlarged personal income tax credit for the sales tax, and tax

reduction to provide partial relief of the excessive burden on domestic insurance

companies.

Measuring the Impact of Specific Options

The impact of any new state program that reduces local property taxes

can be traced down to changes in the local property tax rate of any city or

town. Similarly, any new state tax has implications for the tax burdens of

individuals at different income levels. These results can be combined to

yield estimates of the total state-local tax burden of individuals at

different income levels in any city or town.

Table 14-1 illustrates how the local property tax implications of new

state programs can be derived. The first and last municipalities in the list

of 351 cities and towns in Massachusetts are used as examples.

Estimates of the distributional impact of raising additional amounts of

revenue through various income or sales tax changes are shown in Table 14-2.

The effect of local property tax rate changes on individuals' tax burdens can

be obtained by using Census data house values by income class.[1]

Examples of Consistent Reform "Packages"

The fiscal structure reform options described above can be combined in

various ways into consistent reform "packages"--consistent in the sense that

new uses of state funds are balanced by new revenues, preserving the focus of

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[1]Estimates based on 1970 Census of Housing and Census of Population ratios
were obtained from Joseph Flatley of the Governor's Task Force on Metropolitan
Development. They show, for example, that an average individual with an income
of $15,000 and living in Abington has a house valued at $18,346. Table 14-1
indicates that a $250 million EMG program using the equalized valuation basis
(Lottery Formula) for distribution would reduce Abington's equalized tax rate
by $5.24, or 16.1 percent. Thus, the $15,000 individual would realize a local
property tax reduction of $96.

Table 14-1

Estimated Changes in Equalized Property Tax Rates
Under Various Individual Reforms, FY 1975,
Abington and Yarmouth*

	Abington		Yarmouth	
	Absolute Change	Percentage Change	Absolute Change	Percentage Change
1. Additional $250 million EMG				
a. Equalized Valuation Basis (Lottery Formula)	-4.84	-14.8	- .37	-2.1
b. E.V. Basis (.5) + Nonschool Tax Effort (.5)	-3.99	-12.2	-1.21	-6.9
c. Relative Income Basis	-5.83	-17.9	-1.64	-9.4
d. E.V. Basis (.5) + Relative Income (.5)	-5.32	-16.3	-1.00	-5.7
e. Federal Revenue Sharing Basis	-3.87	-11.9	-1.73	-9.9
f. Population Basis (per capita)	-5.30	-16.3	-1.47	-8.4
2. State Takeover of County Costs, etc. ($147 mil.)	-1.94	- 6.0	-1.28	-7.3
3. 50 percent Reimbursement of Property Tax Abatements	- .41	- 1.2	- .19	-1.1
4. Comprehensive School Finance Reform with Statewide Property Tax				
a. Statewide Tax to yield $1 bil., w/save harmless	- .21	- .06	+2.00	+11.5
b. Statewide Tax to yield $800 mil., w/save harmless	-3.86	-11.8	0	0
5. Extra $200 mil. through Chapter 70 School Aid	-6.95	-21.3	- .49	-2.8

*Based on equalized tax rates shown in Appendix 4-1, $32.60 for Abington and
$17.42 for Yarmouth. The absolute changes from these initial levels are com-
puted from data presented above, as follows: (1) Estimated nonschool rate
minus rates under $250 million EMG programs with different formulas (data in
Appendix 8-1A); (2) Estimated nonschool rate (Appendix 8-1A) minus estimated
rate after assessment takeover (Appendix 9-1); (3) Column 2, (Appendix 4-1);
(4) Column 1, Appendix 7-4 minus columns 3 and 4, respectively; (5) Column 1,
Appendix 7-4, minus column 2.

Table 14-2

Distributional Impact of Alternative Changes
in Massachusetts Income and Sales Taxes
(Estimates for fiscal 1975)

| | Tax Burden (percent) by Income Level: | | | |
	$9,000	$15,000	$22,000	$45,000
INDIVIDUAL INCOME TAX				
1. Present Tax Structure and Level	3.3	3.6	4.2	4.9
2. Level Increased by $145 million with alternative structure changes:[a]				
A. Present System, with Rates of 5.75 percent and 9.75 percent	3.8	4.2	4.8	5.5
B. Piggybacking Federal Income Tax Liability	3.4	3.8	4.7	6.2
C. Progressive Rate Applied to Massachusetts Tax Base	2.3	3.4	5.1	8.9
RETAIL SALES AND EXCISE TAX				
1. Present System and Level	1.5	1.1	1.0	.8
2. Level Increased $105 million[b]	2.0	1.6	1.6	1.3
3. Level Increased $250 million[c]	2.2	2.0	1.9	1.6
4. Level Increased $285 million[d]	2.3	2.1	2.0	1.7

NOTES:

[a]Structure changes as described in Chapter 11.
[b]Base enlarged to include apparel and services (recreation, personal care, and household operations) at 3 percent tax, plus 1¢ increase in gasoline tax.
[c]Base enlarged to include apparel, services, alcohol and cigarettes and rates increased to 4 percent, plus 1 1/2¢ increase in gasoline tax. A credit for lower income families is included.
[d]Base enlarged to include apparel, services, alcohol, cigarettes, and meals away from home and rate increased to 4 percent, plus a 1 1/2¢ increase in gasoline tax. A credit for lower income families is included.

this report on <u>structure changes</u> within the state-local revenue total projected

for fiscal 1975.   Five different reform plans have been constructed, representing

examples of three different types of approaches.   The five plans are presented

here solely for illustrative purposes.[1]   The elements of the example plans are

summarized in Table 14-3.

The first two examples (Plans IA and IB) represent modest changes; $250

million in new state revenues is raised by changes in existing state taxes, and

the proceeds are channeled back to localities through an expanded equalizing

municipal grants program.   Plan II involves switching approximately 27 percent

of property tax collections from the present local property tax to a statewide

tax; the total amount collected statewide, $627 million, is used to fund an

expanded equalizing municipal grants program ($250 million), state assumption

of county costs and other assessments on the state apportionment basis ($147

million), 50 percent reimbursement of property tax abatements ($30 million)

and an additional $200 million in Chapter 70 school aid.   The first of two

"comprehensive" reform packages, example Plan IIIA involves $1,377 million

in new state revenues, coming from increases in both the income and sales taxes,

and a statewide property tax yielding $947 million.   The proceeds are used to

fund an additional $250 million in equalizing municipal grants, comprehensive

revision of the state school finance system (requiring $1,062 in new state

funds), 50 percent reimbursement to cities and towns for property tax abate-

ments, $35 million for enlarged sales tax credits on the state income tax.

Plan IIIB differs from Plan IIIA only in that it includes changes in corporation

excise taxes (an increase in the corporation excise tax rate to 9 1/2 percent,

[1]The five example plans were developed jointly by all the authors of this
report.   It must be emphasized that none of the plans in any way represents a
recommendation by the authors or by the Federal Reserve Bank of Boston.

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Summary of Five Example Fiscal
Structure Reform Packages
(millions)

New State Sources		Uses of Funds	
Plan IA			
Sales & Excise Tax Increases	$285	Equalizing Municipal Grants	$250
		Larger Sales Tax Credit	35
	285		285
Plan IB			
Sales & Excise Tax Increases	105	Equalizing Municipal Grants	250
Individual Income Tax Increase	145		
	250		250
Plan II			
Statewide Property Tax (1)	627	Equalizing Municipal Grants	250
		Takeover Assessments on State Apportionment Basis	147
		50 Percent Reimbursement of Abatements	30
		Additional Chapter 70 Funding	200
	627		627
Plan IIIA			
Individual Income Tax Increase	145	Equalizing Municipal Grants	250
Sales & Excise Tax Increases	285	Revised School Finance Plan (3)	1,062
Statewide Property Tax (2)	947	Larger Sales Tax Credit	35
		50 Percent Reimbursement of Abatements	30
	1,377		1,377
Plan IIIB			
Individual Income Tax Increase	145	Equalizing Municipal Grants	250
Sales & Excise Tax Increases	250	Revised School Finance Plan (3)	1,062
Corporation Excise Changes (4)	35	Larger Sales Tax Credit	35
Statewide Property Tax (2)	947	50 Percent Reimbursement of Abatements	30
	1,377		1,377

Notes: (1) State rate set at 11.60; yield reduced by save harmless provision.
(2) State rate set at 18.27 to yield $1 billion; yield reduced by save harmless provision.
(3) This is Allocation-type School Finance Plan (A), described in Chapter 7.
(4) Includes: increase in corporation excise tax rate to 9 1/2 percent (+23); removal of investment tax credit (+22); and reduction of insurance taxes (-10).

Individual components of these plans are derived from earlier chapters.

removal of the investment tax credit and partial relief of the extraordinary tax burden on domestic insurance companies) netting $35 million in new revenues, and the required increase in sales and excise taxes is reduced by the same amount.

The impact of these five example plans on the overall state-local tax structure in the Commonwealth is shown in Table 14-4. Local property taxes are reduced by 11 percent in Plans IA and IB, by 27 percent in Plan II and by 58 percent in Plans IIIA and IIIB. Total reliance on the property tax (local and state bases) is not reduced in Plan II, since only a switching of the bases is involved. In Plans IIIA and IIIB local property tax reduction is accomplished by a combination of substituting new state nonproperty taxes and switching to a statewide property tax base; the remaining total property tax revenue in these plans is split almost equally between local and statewide property taxes.

As noted earlier, any reform that produces a large reduction in property taxes will yield significant tax savings for business, since business presently pays approximately 30-40 percent of property taxes collected in Massachusetts.[1] Business taxes are increased only in Plan IIIB; in the other plans, business property tax reduction is in effect being financed by higher state taxes on individuals.

Distributional Results of the Example Reform Packages

Estimates of the implications of the five example reform plans for effective total tax burdens of individuals can be derived by combining estimates of the tax burden impact of specific structure reform components, described

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[1] Based on data in U.S. Bureau of the Census, Census of Governments, 1967. Actually, since business property tends to be concentrated in urban areas with relatively high tax rates, local property tax reduction for business would probably be proportionately greater than business' share in present property tax collections.

Table 14-4

Massachusetts State and Local Tax Structure,
Present System and Five Example Reform Plans
(millions)

	Present System $	% of Total	Plan IA $	% of Total	Plan IB $	% of Total	Plan II $	% of Total	Plan IIIA $	% of Total	Plan IIIB $	% of Total
Local Sources												
Property Tax	2,313	49.6	2,063	44.2	2,063	44.2	1,686	36.1	971	20.8	971	20.8
Motor Vehicle Excise Tax	172	3.7	172	3.7	172	3.7	172	3.7	172	3.7	172	3.7
Total, Local	2,485	53.3	2,235	47.9	2,235	47.9	1,858	39.8	1,143	24.5	1,143	24.5
State Sources												
Individual Income Tax	1,029	22.0	994	22.0	1,174	25.1	1,029	22.0	1,139	24.4	1,139	24.4
Corporate Excises	362	7.8	362	7.8	362	7.8	362	7.8	362	7.8	395	8.5
General & Selective												
Sales Taxes	702	15.0	987	20.4	807	17.3	702	15.0	987	21.1	954	20.4
Inheritance and Other	90	1.9	90	1.9	90	1.9	90	1.9	90	1.9	90	1.9
State Property Tax	---	---	---	---	---	---	627	13.4	947	20.4	947	20.4
Total, State	2,183	46.7	2,433	52.1	2,433	52.1	2,810	60.2	3,525	75.5	3,525	75.5
Total State and Local Taxes	4,668	100.0	4,668	100.0	4,668	100.0	4,668	100.0	4,668	100.0	4,668	100.0
Local Property Taxes as Percent of Total		49.6		44.2		44.2		36.1		20.8		20.8

Source: Division of Fiscal Affairs, the Commonwealth of Massachusetts, The Budget in English, and Federal Reserve Bank of Boston estimates (see Table 14-3).

above. Effective total tax burden is measured by calculating total state and local taxes as a percentage of family income. Tables 14-5 through 14-10 present tax burden estimates for families at median income levels and with income levels of $9,000, $15,000, $22,000 and $45,000 living in five types of localities: central cities, rural towns, wealthy suburbs, rapidly growing suburbs and older commercial/residential communities (five cities or towns were selected to comprise a representative sample of each group). The distributional results of each example plan can be compared directly to results under the present system. Separate estimates are shown under Plans IB, IIIA and IIIB reflecting income tax collections under three different progressive rate structures--using the existing Massachusetts structure (with higher rates to generate increased revenue), piggy-backing the Federal income tax liability, and applying graduated rates to the present Massachusetts tax base.

The summary tables 14-5 through 14-10 reveal that the existing tax structure in Massachusetts is clearly regressive--the tax burden declines as family income rises. This regressivity results primarily from the property tax burden. The other characteristic of the existing structure is that the tax burden varies by type of town. Rural towns with low levels of public services generally have the lowest tax burden -- declining from 9.7 percent of family income of $9,000 to 7.4 percent for high income individuals. The highest levels of taxes are found in the central cities and the wealthy suburbs where taxes range from more than 14 percent for low income families to 9 percent for high income. The high taxes in the wealthy suburbs reflect the high level of services in these communities, while the tax burden in the central cities are due primarily to the higher costs of municipal services in urban areas.

Table 14-5

SUMMARY TABLE

Rural Towns

	\$9,000	\$15,000	\$22,000	\$45,000
Income Class				
Total Taxes as a Percent of Income				
Existing Structure	9.7%	8.0%	7.8%	7.4%
Plan IA	10.0	8.6	8.6	8.2
Plan IB				
Massachusetts Structure	10.2	8.7	8.8	8.5
Graduated Rates	8.7	7.9	9.1	11.8
Piggybacking Federal Tax	9.8	8.3	8.7	9.1
Plan II	10.4	8.3	8.2	7.7
Plan IIIA				
Massachusetts Structure	10.5	9.2	9.2	8.8
Graduated Rates	9.0	8.4	9.5	12.2
Piggybacking Federal Tax	10.1	8.8	9.1	9.5
Plan IIIB				
Massachusetts Structure	10.4	9.1	9.1	8.7
Graduated Rates	8.9	8.3	9.4	12.1
Piggybacking Federal Tax	10.0	8.7	9.0	9.4

Rural towns include: Belchertown, Essex, Holland, Rowley, Wareham.

Source: See Technical Appendix 14-2.

SUMMARY TABLE 14-6

Wealthy Suburbs

	Income Class			
	$9,000	$15,000	$22,000	$45,000
	Total Taxes as a Percent of Income			
Existing Structure	14.4	11.1	10.6	8.9
Plan IA	14.8	11.8	11.4	9.7
Plan IB				
Massachusetts Structure	15.0	11.9	11.6	9.9
Graduated Rates	13.5	11.1	11.9	13.3
Piggybacking Federal Tax	14.6	11.5	11.5	10.6
Plan II	16.4	12.5	11.7	9.6
Plan IIIA				
Massachusetts Structure	15.6	12.6	12.1	10.4
Graduated Rates	14.1	11.8	12.4	13.8
Piggybacking Federal Tax	15.2	12.2	12.0	11.1
Plan IIIB				
Massachusetts Structure	15.5	12.5	12.0	10.3
Graduated Rates	14.0	11.7	12.3	13.7
Piggybacking Federal Tax	15.1	12.1	11.9	11.0

Wealthy suburbs include: Cohasset, Lincoln, Marblehead, Shrewsbury and Weston.

Source: See Technical Appendix 14-2.

SUMMARY TABLE

Central Cities

	\$9,000	\$15,000	\$22,000	\$45,000
	Income Class			
	Total Taxes as a Percent of Income			
Existing Structure	17.3%	12.7%	11.0%	9.2%
Plan IA	16.2	12.5	11.2	9.6
Plan IB				
Massachusetts Structure	16.4	12.6	11.4	9.8
Graduated Rates	14.9	11.8	11.7	13.2
Piggybacking Federal Tax	16.0	12.2	11.3	10.5
Plan II	15.3	11.5	10.1	8.7
Plan IIIA				
Massachusetts Structure	15.8	12.5	11.4	10.0
Graduated Rates	14.3	11.7	11.7	13.4
Piggybacking Federal Tax	15.4	12.1	11.3	10.7
Plan IIIB				
Massachusetts Structure	15.7	12.4	11.3	9.9
Graduated Rates	14.2	11.6	11.6	13.3
Piggybacking Federal Tax	15.3	12.0	11.2	10.6

Central cities include: Boston, Brockton, Chicopee, Leominster, Worcester.

Source: See Technical Appendix 14-2.

Table 14-8

SUMMARY TABLE

Rapidly Growing Suburbs

	Income Class			
	$9,000	$15,000	$22,000	$45,000
	Total Taxes as a Percent of Income			
Existing Structure	12.4%	10.4%	9.5%	8.3%
Plan IA	12.7	11.0	10.2	9.1
Plan IB				
Massachusetts Structure	12.9	11.1	10.4	9.3
Graduated Rates	11.4	10.3	10.7	12.7
Piggybacking Federal Tax	12.5	10.7	10.3	10.0
Plan II	13.2	11.0	10.1	8.7
Plan IIIA				
Massachusetts Structure	12.5	11.0	10.4	9.4
Graduated Rates	11.0	10.2	10.7	12.8
Piggybacking Federal Tax	12.1	10.6	10.3	10.1
Plan IIIB				
Massachusetts Structure	12.4	10.9	10.3	9.3
Graduated Rates	10.9	10.1	10.6	12.7
Piggybacking Federal Tax	12.0	10.5	10.2	10.0

Rapidly growing suburbs include: Acton, Boxborough, Leicester, Pembroke, Sudbury.

Source: See Technical Appendix 14-2.

SUMMARY TABLE

Older Industrial/Residential Areas

	Income Class			
	$9,000	$15,000	$22,000	$45,000
	Total Taxes as a Percent of Income			
Existing Structure	12.9%	9.8%	9.0%	8.2%
Plan IA	12.6	10.1	9.5	8.7
Plan IB				
Massachusetts Structure	12.8	10.2	9.7	8.9
Graduated Rates	11.3	9.4	10.0	12.3
Piggybacking Federal Tax	12.4	9.8	9.6	9.6
Plan II	12.5	9.5	8.8	8.0
Plan IIIA				
Massachusetts Structure	12.9	10.6	10.0	9.3
Graduated Rates	11.4	9.8	10.3	12.7
Piggybacking Federal Tax	12.5	10.2	9.9	10.0
Plan IIIB				
Massachusetts Structure	12.8	10.5	9.9	9.2
Graduated Rates	11.3	9.7	10.2	12.6
Piggybacking Federal Tax	12.4	10.1	9.8	9.9

Older industrial/residential areas include: Attleboro, Hopkinton, Marlborough, North Adams, Somerville.

Source: See Technical Appendix 14-2.

Table 14-10

SUMMARY TABLE

Median Income

	Type of Community				
	Rural Towns ($15,231)	Wealthy Suburbs ($24,994)	Central Cities ($13,840)	Rapidly Growing Suburbs ($21,037)	Older Industrial/ Residential Areas ($15,181)
Existing Structure	8.6%	10.1%	14.2%	10.1%	10.0%
Plan IA	9.2	10.9	13.7	10.7	10.3
Plan IB					
Massachusetts Structure	9.3	11.0	13.9	10.8	10.4
Graduated Rates	8.5	11.8	12.8	11.0	9.6
Piggybacking Federal Tax	8.9	10.9	13.3	10.7	10.0
Plan II	9.1	11.1	12.7	10.6	9.7
Plan IIIA					
Massachusetts Structure	9.8	11.6	13.6	10.9	10.7
Graduated Rates	9.0	12.4	12.5	11.1	9.9
Piggybacking Federal Tax	9.4	11.5	13.0	10.8	10.3
Plan IIIB					
Massachusetts Structure	9.7	11.5	13.5	10.7	10.6
Graduated Rates	8.9	12.3	12.4	10.9	9.8
Piggybacking Federal Tax	9.3	11.4	12.9	10.6	10.2

Rural towns include: Belchertown, Essex, Holland, Rowley, Wareham.
Wealthy suburbs include: Cohasset, Lincoln, Marblehead, Shrewsbury, Weston.
Central cities include: Boston, Brockton, Chicopee, Leominster, Worcester.
Rapidly growing suburbs include: Acton, Boxborough, Leicester, Pembroke, Sudbury.
Older industrial/residential areas include: Attleboro, Hopkinton, Marlborough, North Adams, Somerville.

Source: See Technical Appendix 14-2. The tax burdens for the two groups with median incomes close to $15,000 differ from the tax burden shown for that income class on the preceding tables due to data aggregation problems which resulted in understating the property tax burden presented for the $15,000 income class as explained in the technical appendix.

Plan IA raises sales taxes by $285 million (with a $35 million credit) and channels these funds back to the cities and towns through equalizing municipal grants for local property tax relief.[1] Since individuals received about two-thirds of the relief from property taxes but bear the full burden of the sales tax increase, their overall tax burden rises. However, the equalizing municipal grants insure that the overall tax increases in the poorer communities are moderate while the increases in the wealthy communities are substantial. Under Plan IA tax burdens increase for all families in all communities with the exception of the $9,000 and $15,000 groups in central cities and the $9,000 group in older industrial towns, for whom taxes are reduced.

Under Plan IB, the $250 million local property tax reduction through equalizing municipal grants is financed by $145 million increase in the individual income tax and $105 million increase in sales taxes. The overall distributional results of Plan IB are very sensitive to the structure of the individual income tax. If the Massachusetts income tax liability is calculated as a percentage of the Federal (piggy-backing), then the overall distribution of tax burden remains regressive. Applying New York graduated rates to the Massachusetts tax base enables the income tax to offset the regressivity of the sales and property tax, thereby making the overall distribution moderately progressive. In any case, however, most individuals in the $9,000 and $15,000 income classes benefit from Plan IB. Furthermore, tax burdens for central city residents are reduced while they are increased for most individuals in the wealthy suburbs.

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[1]All five plans include substantial expansion in the equalizing municipal grants program; the estimates assume that the EMGs are distributed according to a weighted combination of relative equalized valuation per capita and nonschool tax effort (Formula 5, described in Chapter 8). Estimated local property tax rates under the five example plans are tabulated in Appendix 14-1 for every city and town in the Commonwealth.

Plan II involves switching about $627 million from the local to a state-wide property tax; the funds are then returned to communities through equalizing municipal grants, state assumption of county costs, reimbursement for property tax abatements and additional Chapter 70 funds. The main impact of Plan II is to reduce taxes for all residents of central cities and older industrial towns. This reduction is paid for primarily by the wealthy suburbs, although tax burdens for people in rural communities are also increased slightly.

Plans IIIA and IIIB involve a large statewide property tax, increased sales and income taxes on the revenue side, and comprehensive school finance reform as well as equalizing municipal grants on the distribution side. As in Plan IB, the progressive or regressive distribution among income classes depends on the nature of the individual income tax. Only under a structure of graduated rates is generalized tax relief for $9,000 families in all five types of communities possible. Furthermore, graduated rates will insure tax reduction for most families in the $15,000 income class. Under either income tax scheme, the total tax burden is increased for all income groups above $15,000. This increase in individual tax burden arises because a large portion of the benefits of property tax reduction accrues to business. Plan IIIB mitigates the effect of this somewhat by including a corporate excise tax increase offset by a slightly lower sales tax increase than in Plan IIIA. In addition, the equalizing impact of these comprehensive reform packages is evidenced by the fact that while the overall share that individuals pay increases, effective burdens in wealthy suburbs increase much more than those in the central cities.

Plans IB and IIIA involve a varying degree of overall property tax reduction and a consequent varying increase in the share of total taxes to be paid by individuals. This transfer of tax burden from business to individuals

arises because individuals receive about two-thirds of the benefit of property tax reduction but pay for the entire increase in state revenues through higher sales and income taxes. Plan IIIA involves a major shift of about $430 million from property to individual income and sales taxes. This shift results in higher tax burdens for all families over $15,000 and moderate reduction for low income individuals. Plan IB represents a more modest decline of $250 million in property taxes and smaller increases in individual income and sales taxes, therefore, tax burdens are generally lower under Plan IB than Plan IIIA.

Any property tax reduction financed by income and sales taxes will result in increased tax burdens on individuals. Two options are available to avoid raising tax burdens on low and middle income families as a result of property tax reduction. One approach is to finance the increased personal taxes through an income tax with graduated rates so that the additional burden falls on upper income groups. The alternative is to offset a portion of property tax reduction with increased business taxes.

Conclusion

The five plans described here were developed to illustrate the kinds of revenue structure reforms that are possible in Massachusetts to fulfill a common goal subject to a variety of constraints. The main purpose of this report has been to provide information on a wide range of options which might be employed to ameliorate some of the distortions resulting from excessive reliance on local property taxes. Our approach has been to develop a series of components for both raising revenues and for distributing them back to the cities and towns. These components have been developed in such a way that they can be assembled into a variety of reform packages, of which the five described here are only examples.

Local property tax reduction as proposed here does not dramatically change
the incidence of total state and local taxes; it does however help to eliminate
some of the distortions caused by the exceptionally high tax burden in some
areas, particularly older cities. Just as importantly, it has long-run
implications for improving the equity of our tax system. In summary, this
report presents a menu for revenue restructuring in Massachusetts that is
meaningful yet not drastic, and that should provide some guidance for
approaching feasible reform.

Chapter 15

SUMMARY

Steven J. Weiss

The state-local fiscal structure in Massachusetts is seriously out of balance.
An extremely heavy load is carried by local property taxes, which are expected to
yield around half of combined total state and local tax revenues in the Common-
wealth in fiscal year 1975. The property tax is neither conducive nor responsive
to economic growth. In some localities the burden of the local property tax is
approaching a level that is intolerable to individuals and businesses. Economic
decisions are distorted by large variations in tax rates among communites, and
heavy local property tax burdens underlie or exacerbate many of the economic and
social problems facing the state.

Property tax reduction is a major current concern in state legislatures
throughout the country. Many states have moved in the last few years to cut local
property taxes by increasing state aid or assuming financial responsibility for
functions assigned to local government. Massachusetts has made some progress in
this direction, but mostly on a piecemeal basis, and more dramatic action is now
required in order to achieve significant and lasting change.

The term "fiscal structure reform" used in the title of this report goes beyond
mere local property tax relief and embraces the entire system of raising revenues at
the state and local government levels and the allocation of those revenues to
spending jurisdictions. Thus, consideration of programs for state aid to local
governments is an important part of the report, as is the assumption of state
financial responsibility for certain governmental functions. Although the
problem of expenditure control is a matter of substantial concern currently,
an analysis of state and local expenditures and the possible need for tax

increases to cover an expected deficit in the state budget is beyond the scope of this study. This report analyzes the impacts of alternative <u>structural</u> <u>changes</u> in the state fiscal system, assuming no change in the total level of state and local government spending projected for fiscal year 1975. In this context, any new revenue raised at the state level substitutes dollar for dollar for local property taxes, either through increased state aid or through state assumption of responsibility for functions now funded locally.

Unfortunately, opportunities for relieving local property taxes by substituting broad-based state taxes are severely limited in Massachusetts because most state taxes are already relatively high by national standards. Given this constraint, it becomes necessary to consider new alternative revenue sources in order to achieve any large shift away from the local property tax. In particular, introduction of a statewide property tax would be one way to initiate meaningful structural change. On the revenue side, a statewide property tax would not reduce the overall reliance on the property tax <u>per se</u>, but it would ameliorate many distortions and inequities of the present system by substituting a uniform rate for widely varying local rates and by spreading some of the cost of tax exempt institutions across the state. Proceeds of the tax could be earmarked exclusively for local aid. Over time, revenues from the more elastic state income taxes could be substituted for statewide property tax revenues as a device for gradual reduction of the property tax share in total state and local revenues.

The primary purpose of this report is to examine and evaluate different options for reform and their implications in terms of tax rate changes for every city and town in the state and in terms of their impact on the distribution of tax burden by income class. The various reform alternatives are combined in the final chapter to form five specific examples of three distinct types of reform

"packages." These five example plans are developed in order to illustrate how
the various options can be combined. The five plans are evaluated in terms of
their impact on the overall state-local revenue structure and their implications
for the distribution of the total state-local tax burden for individuals in
different income classes and different types of cities and towns. The report is
intended not to recommend any specific reform plan but rather to provide factual
information in a form that may be useful to others concerned about alternatives
for improving the state-local revenue structure in Massachusetts. Following is
a chapter-by-chapter summary of the report:

SUMMARY OF THE REPORT

Present Tax Burdens

The overall burden of state and local taxes on individuals and businesses
in Massachusetts is discussed in Chapter 2, relative to national averages and
specific comparable or competitive states. Total state-local taxes were 14.8 per-
cent of state personal income in 1973, exceeding the U.S. average of 12.9 percent
and ranking Massachusetts sixth in the nation. Reliance on the property tax is
exceptionally high here and this fact contributes to the state's above-average
total tax burden on individuals. Massachusetts ranks second in terms of average
effective property tax rates (almost 60 percent above the U.S. average), and
first and sixth, respectively, in total nonbusiness taxes and individual income
taxes as a percentage of personal income. The sales tax is relatively under-
utilized and represents one possible source of new state revenues.

Almost 24 percent of state and local taxes comes from business in Massachusetts
compared to 19 percent for the nation. Certain industries in Massachusetts,
particularly domestic insurance companies, appear excessively burdened relative
to their national counterparts. Even though they are not part of general tax

revenues, unemployment insurance contributions are quite burdensome, and they are a negative factor in the overall business tax climate.

Expenditure Control

Total state and local government expenditures have tripled in the last ten years, a growth rate 50 percent higher than growth of total output as measured by gross state product. Expenditure growth has been greater at the state than at the local level, sustained in part by increases in Federal aid. In the five-year period 1968-1973 state spending for purposes other than welfare more than doubled. Substantial expenditure growth is built into many state programs so that a large part of aggregate spending changes is not controllable in the short run within the present structure.

An analysis of state-local expenditures would undoubtedly reveal areas where cutbacks could be achieved, but such a massive undertaking is beyond the scope of the present study. However, some constructive suggestions for improving control of state spending are presented in Chapter 3, including (a) improvements in the budgetary process, building on recent reforms and enhancing the legislature's ability to make meaningful decisions about $3 billion in appropriations; (b) program budgeting, development of systematic procedures to quantify measures of output to be used along with cost figures to evaluate effectiveness of on-going or proposed programs; (c) integrating the several present budgets (general, deficiency and capital outlay) into one internally consistent document; (d) improvements in monitoring of revenues and expenditures, especially sharpening of revenue estimates to yield a more credible forecast of total available funds; (e) increased legislative staff to facilitate evaluation of program effectiveness; and (f) improved management systems and increased accountability to yield

legislative-executive agreement on spending decisions, and according greater

management flexibility to executive agencies that will then be held accountable

for results.

LOCAL REVENUE AND STATE-LOCAL FISCAL RELATIONSHIPS

Local property taxes will total nearly $2.3 billion in Massachusetts in

fiscal 1975. This is presently the only direct tax source legally available to

local governments in the Commonwealth. State aid payments effectively reduce

property tax requirements. At the same time, however, assessments on the cities

and towns for services performed by the state and other governmental agencies

add to the local property tax burden.

Local Property Taxes

Property taxes produce about half of total state and local tax revenues in

Massachusetts, down from 58 percent twenty years ago but still very high compared

to the national average of 37 percent in 1973. The Commonwealth's unusually

heavy reliance on local property tax revenues has adverse economic and social

effects, as discussed in Chapter 4.

Local rates vary tremendously among communities, and they tend to be higher

in localities where income levels are relatively low. Because of severe dis-

parities in the local property tax base per capita, high rates generally are not

matched by higher levels of local government services, and in fact a converse

relationship often exists. Administrative practices such as de facto classifica-

tion of property for assessment purposes and variations in assessment ratios can

lead to inequitable differences in tax burdens both between communites and within

jurisdictions. State-determined equalized valuation has been greatly improved

in recent years, but there is still much room for action at the state level to

promote equity and efficiency in property tax administration.

Property taxes impose an extraordinarily heavy burden on residential and business property in Massachusetts, especially in low-income cities and towns. The burden can be viewed as a discriminatory tax on real estate. Property taxes as a proportion of shelter costs are higher in metropolitan Boston than in any other metropolitan area in the country. New business construction in some center cities would most likely be stifled were it not for pre-construction tax "agreements" arranged with local assessors. As a result of the Supreme Judicial Court's decision in the Sudbury case, mandating assessment at full market value, tax burdens of some businesses and homeowners could be increased sharply.

Large differences in local rates have unfortunate social consequences Exclusionary zoning in the suburbs is motivated partly by attempts to preserve the local tax base, and the central cities are becoming increasingly concentrated with low-income people whose residential options are severely limited. Heavy property tax reliance distorts rational land-use planning, notably with regard to tax-exempt property; exempt facilities that should logically be located in central cities represent a drain on the local tax base. The high property tax burden has engendered various arrangements and programs for special relief, partial solutions that fail to address the fundamental problem--a seriously overloaded local property tax.

Substitution of a statewide property tax for local levies would be an effective way to ameliorate rate disparities. Each city and town could be assessed at a uniform rate based on its state-determined equalized valuation, and the proceeds of the tax could be allocated back to local governments on an equalizing basis. An abrupt switch to a statewide tax would have major distributional consequences, i.e., large changes in effective rates and windfall gains and losses in real estate values, but these disruptive consequences could be

avoided by gradual introduction of a statewide levy or inclusion of transitional save harmless clauses.

Other Local Revenues

In many other states, local governments obtain significant amounts of revenue from local nonproperty taxes and nontax revenues. The potential use or expansion of these alternative revenue sources by Massachusetts localities is explored in Chapter 5. Local sales taxes exist in 28 states, and local income, earnings or payroll taxes are utilized in 13 states and the Districut of Columbia. In the interest of efficient administration and compliance, these levies are often piggy-backed on state taxes.

Local nonproperty taxes would be advantageious to municipalities in Massa-chuesetts, especially to central cities. They represent a productive revenue source for providing direct relief to property taxes and they are more responsive to economic growth. They also represent a means by which cities and towns could derive revenue directly or indirectly from institutions that are exempt from local property taxation. Perhaps most significantly, jurisidictions with local nonproperty taxes can collect revenue from nonresident commuters, shoppers and visitors who benefit from educational, commercial, recreational and cultural opportunities in a metropolitan center without contributing directly to supporting differentially high central city costs.

Local nonproperty taxes could not be enacted in Massachusetts without a constitutional change. More fundamentally, their use could be restrained by inter-jurisdictional tax competition and concerns about distorting locational choices of individuals and businesses. These problems would be especially serious in Massachusetts where central cities that would benefit most from implementing these taxes are generally quite small relative to their total metropolitan areas.

While this problem could be overcome by levying nonproperty taxes on a metro-politan or regional basis, such an approach would encounter practical problems in Massachusetts and does not appear likely to succeed. It would seem reasonable, however, to at least provide local government with the option of levying non-property taxes.

Massachusetts lags behind the nation in its utilization of nontax revenue sources, especially at the state government level. Greater use of fees and charges for government services could provide some property tax relief; while this would not provide enough revenue for significant relief, the move would still be desirable.

Present State Aid Programs

Massachusetts provides financial aid to local governments in proportions that are below the national average, and this contributes to the Commonwealth's excessive reliance on the local property tax. The composition of existing state aid is strongly oriented toward public education. While school costs represent around half of local expenditures, over 80 percent of state aid in fiscal 1975 will be channeled through school-related programs. This imbalance is particularly dis-advantageous to cities with differentially high non-educational spending burdens.

The major state aid programs in Massachusetts are described in Chapter 6. Aid to local governments is slated to total over $750 million in fiscal 1975, and it is distributed through over 40 different programs. Many of the individual programs operate on a reimbursement basis which favors wealthier communities that can afford to spend more on reimbursable functions. Only a minority of the present programs are designed to promote equalization of local tax effort or government services by distributing funds on the basis of relative needs or ability to pay. Overall, state aid per capita is not significantly higher in poor cities and towns compared to wealthier municipalities, and cities with higher

expenditures in non-aided functions receive correspondingly less benefit from state aid programs. The situation could be rectified effectively by providing additional equalizing aid for nonschool services through an expanded program modelled after the existing equalizing municipal grant (EMG) program.

School Finance Reform

School aid has increased six-fold in the last decade to a fiscal 1975 level of around $600 million. Distribution formulas and methods have been improved in the interest of greater equalization, most notably by a new law, Chapter 492 enacted in 1974, which also revised some nonschool programs. Despite these gains, the current school finance system produces inequitable results because school spending is still substantially tied to local wealth, and inter-district differentials in taxable wealth are enormous. State school finance systems yielding results similar to or less severe than those in Massachusetts have been found unconstitutional by courts in at least eight states. Unless the Massachusetts system is comprehensively reformed, it will remain vulnerable to legal challenge.

Comprehensive reform designed to reduce disparities in school spending levels and local tax burdens could be achieved either by extensive modification and expansion of equalizing school aid or by full state funding of public education. These approaches are examined in Chapter 7, and neither one appears to offer a politically feasible solution for Massachusetts. However, a "hybrid solution" involving substantially increased state funding and improved equalization could be developed by utilizing methods suggested in new legislation adopted by other states that have responded to legal challenges.

Comprehensive school finance reform in Massachusetts could be implemented by moving to substantial state funding of public school costs through a system of per-pupil allocations to school districts, keyed to a target spending level

reflecting pupil characteristics. Localities would retain authority to supple-
ment the state allotments by raising local property taxes on an equalized basis.
In order to be financially viable part of the funding for such an approach would
have to come from a statewide property tax. Furthermore, since any abrupt switch
to this new arrangement would cause disruptive changes in school tax rates and
spending levels, a new program would have to be phased in gradually.

In addition to promoting equity in school finance, the type of reform pro-
posed in Chapter 7 would improve control of school spending. The target spending
level would be set as a matter of state policy, and this would be the primary
determinant of the budgetary cost to the state, in contrast to the open-ended
reimbursement approach of the present system.

Increased State Aid for General Municipal Services

Increased state aid for nonschool functions is an essential requirement of
fiscal reform in Massachusetts. General municipal services presently receive a
disproportionately low level of state support. An effective new state aid
program designed to relieve excessive local property tax burdens should distribute
aid in a manner reflecting variations in nonschool expenditure burdens and
relative tax base. A new program to aid general municipal services should take
the form of block grants rather than new categorical matching grants or reimburse-
ment programs which distort local expenditure decisions and favor wealthy juris-
dictions. The present system for distributing the proceeds of the lottery--
equalizing municipal grants (EMGs)--is an excellent model of this kind of approach.

An expanded EMG program, added to existing categorical aid programs, would
provide direct relief to local property taxes. The EMG approach is clearly
superior to a simple per-capita distribution or to any multifactor formula
approach to compensating for cost differentials. Equalizing municipal grants

could be allocated according to simple formulas incorporating a variety of alternative measures of ability to pay or needs. Six different formulas are examined in Chapter 8. Definitive statistical tests for determining which formula works best are impossible since there is no clear absolute standard against which to evaluate the distributional results.

An EMG formula that performs quite well in channeling aid is a combination formula incorporating factors reflecting both relative fiscal capacity (measured by equalized valuation per capita) and tax effort (measured by property taxes for nonschool purposes as a proportion of personal income). Other formulas that yield good results are the Federal Revenue Sharing basis and the formula for the present Lottery Distribution.

Reducing State Assessments on Cities and Towns

As an alternative or complement to increased state aid to cities and towns, some of the present assessments could be eliminated and the costs assumed by the state. In fiscal 1975, local governments in Massachusetts will be assessed a total of $231 million to pay for services provided by the state, various agencies, and county government. Twenty-five different programs are involved, and the assessments are made on the basis of fees and charges or by formula allocation of costs. Assessments on formula bases are most important in the total, especially the "state apportionment basis" which allocates costs according to each affected locality's share of equalized property value.

State takeover of financial responsibility for functions presently financed by assessments on the "state apportionment basis" should be considered for several reasons. Most importantly, the services involved provide benefits to all citizens of the Commonwealth. Also, state takeover would eliminate problems in the present system caused by the fact that cities and towns must pay the

costs of services over which they have little or no control; and distortions caused by implicit use of equalized valuation as a measure of benefits received would be eliminated. The cost to the state would be about $147 million, including assumption of Suffolk County costs presently paid by Boston. However, property tax relief as a result of state takeover of these costs would be less equalizing than a new EMG program costing the same amount.

STATE REVENUE STRUCTURE

State tax revenues are expected to total $2.2 billion in fiscal 1975. Reflecting growth of individual and corporate income taxes and the enactment of the sales tax in 1966, state revenues have increased overtime as a proportion of total state and local revenues. In terms of their share in total state taxes, the major revenue sources are the individual income tax (47 percent), business excises (17 percent), and the general sales tax (12 percent).

The Individual Income Tax

The mainstay of the Massachusetts state tax structure, the individual income tax, has increased in importance over time from 22 percent of state revenues in 1955 to the present 47 percent, representing projected revenues of $1,029 million in fiscal 1975. Earned income is taxed at a flat 5 percent rate and unearned income is taxed at 9 percent. Personal exemptions and limited deductions (including Social Security contributions but excluding many Federal deductions) are subtracted to arrive at the taxable income base. The extra 4 percent rate on unearned income does not raise a substantial amount of revenue, but it has a significant impact on the incidence of the tax.

The possibilities for raising additional revenue through the individual income tax and alternative methods for raising the current level of revenues are important questions considered in Chapter 11.

Massachusetts could raise an additional $200 million from the individual income tax in 1975 without getting seriously out of line relative to other states. Among alternative new methods for raising income tax revenues, two methods appear most attractive because they would reduce to some extent the regressive incidence of total state and local taxes: applying graduated rates to the present tax base, or piggy-backing the Federal income tax liability.

Most other states utilizing an individual income tax employ progressive rate structures, either directly or by piggy-backing Federal liability. Adoption of a progressive rate structure in Massachusetts would eliminate the capriciously heavy burden that the 9 percent rate on unearned income imposes on some citizens now, particularly retired people. A major advantage of a progressive rate structure is that revenues increase more than proportionately as income grows, thereby reducing the need for tax rate increases. Also, given the greater value to higher-bracket taxpayers of state taxes as a Federal income tax deduction, a larger share of Massachusetts taxes would be effectively exported. Either a graduated tax or Federal piggy-backing would require a constitutional amendment.

The existing Massachusetts income tax is almost identical to a system of piggy-backing Federal liability in terms of overall progressivity. Using the Federal liability as the state tax base would simplify taxpapyer compliance, but not so dramatically as is widely assumed, because a number of adjustments and recomputations would be required in practice. The piggy-backing arrangement would not yield significant advantages to the state in terms of either collection costs or efficiency of enforcement. Under a piggy-backing scheme, the state partially loses control of a major tax base; any changes in the Federal tax law imply automatic and immediate changes in the state's revenue yield. All factors considered, the gains in revenue yield, responsiveness and equity from a progressive

rate structure could best be obtained by applying graduated rates to the Massachusetts base, although this proposal is likely to meet with considerable opposition.

Business Taxes

The major business tax in Massachusetts is the corporation excise, which is essentially a tax on net income since a residual levy on tangible personal property is being phased out. The effective rate is 8.55 percent on net income, a rate that is exceeded by six states and approximately matched by three others.

While the corporation excise, although high, is not the highest in the nation, the tax burden on domestic insurance companies is extremely heavy and sharply higher than in other states. A reasonable, simple and equitable reform would be to remove the present tax on investment income and substitute a tax on net income as defined for Federal tax purposes at the 8.55 percent corporation excise rate; this combination would yield a net tax reduction of around $10 million, removing a large portion of the present discriminatory burden.

Any state program of local property tax reduction or equalization would decrease substantially total taxes paid by business, since business presently pays approximately 30-40 percent of the property tax and business property tends to be concentrated in cities and towns with relatively high tax rates. As part of a comprehensive fiscal reform package, it might be necessary, therefore, to increase other business taxes. Offsetting state revenues could be raised by increasing the corporation excise tax rate, imposing a low-rate excise on payrolls levied on the employer, eliminating the investment tax credit, or broadening the sales tax base to cover purchases of machinery and replacement parts.

General Sales Taxes and Selective Excises

Massachusetts relies less heavily on sales and excise taxes than all but three other states in the nation. The revenue yield of the general sales tax

is very low relative to other industrial states because the basic rate (3 percent) is low and the tax base is quite narrow, excluding food, clothing, medicine, services and all items subject to selective excises, such as gasoline, alcoholic beverages, cigarettes and meals. Because of the low rate and all the exemptions, the general sales tax is relatively underutilized in Massachusetts, and substantial amounts of new state revenue could be generated by increasing the basic rate or by broadening the base, or both. Estimates of the revenue yield of different combinations of rate and base changes are presented in Chapter 13. The highly regressive impact of any large increase in sales taxation could be cushioned by extending offsetting credits on the income tax without causing a major revenue loss.

The gasoline excise is lower in Massachusetts than in any neighboring state, and every 1¢ increase in the per gallon excise would produce an additional $23 million in revenue. The other selective excises, however, do not appear to offer significant potential for new state revenues.

ALTERNATIVES FOR REFORM

The various options for fiscal reform developed in this report can be combined in different ways to form consistent reform plans that are balanced in terms of expenditure and revenue requirements. Chapter 14 explains how this is done and illustrates the process by describing five specific reform plans which exemplify three distinct approaches to reform. The first two plans (IA and IB) are the most modest, including increased equalizing state aid for general municipal purposes, financed by moderate increases in existing state taxes. The third example, Plan II, involves a statewide property tax but no changes in existing state tax sources; revenues raised by the statewide property tax are redistributed to the cities and towns and used by the state to pay for programs presently financed by the local property tax. Finally, two examples of comprehensive reform packages are presented

(Plans IIIA and IIIB). These plans incorporate a statewide property tax to finance the bulk of public school costs as well as changes in existing state taxes; uses of the enlarged state revenue pot include significantly increased levels of state aid or reimbursements for local property tax reduction, in addition to funding of a substantially revised school finance program. Plan IIIB differs from Plan IIIA in that it includes some increase in business taxation to partially offset large reductions in business property taxes, and the required increase in taxes borne directly by individuals is correspondingly reduced. All five example plans are analyzed in terms of their impact on the overall state-local revenue structure in Massachusetts and changes in the total tax burdens of individuals in different income classes and different types of cities and towns.

APPENDICES

Estimated Equalized Property Tax Rates, Fiscal Year 1975,
The Impact of State Reimbursement of Abatements,
and Percentage Exempt of Non-Municipal Property

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Abington	$32.60	$.41	1.3%	3.8%
Acton	31.36	.10	0.3	3.5
Acushnet	23.33	.64	2.7	1.8
Adams	45.43	.86	1.9	7.9
Agawam	33.12	.30	0.9	0.8
Alford	11.50	.08	0.7	0.8
Amesbury	44.93	.58	1.3	6.0
Amherst	33.24	.10	0.3	60.0
Andover	35.03	.17	0.5	16.9
Arlington	46.88	.48	1.0	6.3
Ashburnham	30.72	.46	1.5	17.4
Ashby	33.09	.57	1.7	3.0
Ashfield	18.05	.17	0.9	1.4
Ashland	33.49	.24	0.7	7.5
Athol	38.32	1.12	2.9	14.8
Attleboro	41.19	.34	0.8	13.3
Auburn	35.91	.45	1.3	2.9
Avon	34.69	.41	1.2	1.7
Ayer	42.38	.40	0.9	21.6
Barnstable	13.62	.12	0.9	7.9
Barre	38.97	.23	0.6	35.6
Becket	15.52	.06	0.4	6.6
Bedford	36.94	.18	0.5	24.7
Belchertown	25.45	.37	1.5	18.6
Bellingham	35.20	.33	0.9	2.4
Belmont	37.11	.20	0.5	8.5
Berkley	28.72	.43	1.5	1.9
Berlin	38.33	.40	1.0	3.1
Bernardston	34.18	.42	1.2	6.4
Beverly	37.64	.39	1.0	11.6
Billerica	35.50	.61	1.7	6.5
Blackstone	43.07	.66	1.5	4.0
Blandford	18.35	.39	2.1	5.5
Bolton	34.99	.02	0.1	16.3
Boston	134.98	1.51	1.1	42.3
Bourne	17.49	.19	1.1	29.7
Boxborough	30.51	.08	0.3	2.9

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Boxford	$27.25	$.12	0.4%	26.9%
Boylston	32.75	.36	1.1	20.7
Braintree	33.66	.42	1.2	6.1
Brewster	21.20	.07	0.3	5.1
Bridgewater	39.07	.39	1.0	24.0
Brimfield	30.38	.44	1.4	8.6
Brockton	51.61	1.00	1.9	24.1
Brookfield	31.90	.51	1.6	2.6
Brookline	50.89	.08	0.2	10.9
Buckland	28.48	.66	2.3	30.2
Burlington	42.08	.17	0.4	1.2
Cambridge	72.39	.42	0.6	41.6
Canton	38.24	.35	0.9	5.4
Carlisle	31.86	.21	0.7	0.8
Carver	32.44	.29	0.9	1.4
Charlemont	24.19	.39	1.6	10.4
Charlton	24.78	.31	1.3	52.3
Chatham	13.77	.09	0.7	1.8
Chelmsford	33.34	.39	1.2	7.2
Chelsea	89.43	1.85	2.1	40.1
Cheshire	27.05	.39	1.4	22.4
Chester	24.16	.56	2.3	5.5
Chesterfield	26.67	.30	1.1	6.1
Chicopee	37.46	1.03	2.7	10.7
Chilmark	11.22	.02	0.2	2.6
Clarksburg	32.86	.80	2.4	2.1
Clinton	32.71	1.58	4.8	24.7
Cohasset	34.11	.21	0.6	1.2
Colrain	21.18	.37	1.7	3.0
Concord	37.19	.10	0.3	24.0
Conway	18.44	.27	1.5	4.6
Cummington	21.78	.50	2.3	10.8
Dalton	36.96	.37	1.0	16.6
Danvers	35.68	.26	0.7	16.1
Dartmouth	27.44	.51	1.9	36.6
Dedham	31.69	.37	1.2	2.8
Deerfield	18.87	.33	1.7	67.3
Dennis	12.88	.10	0.8	2.5
Dighton	30.04	.44	1.5	33.0
Douglas	26.48	.81	3.1	4.6
Dover	28.07	.06	0.2	6.1
Dracut	40.49	2.03	5.0	5.1
Dudley	25.73	.56	2.2	10.3
Dunstable	19.81	.29	1.5	2.2
Duxbury	41.15	.20	0.5	4.1
East Bridgewater	37.01	.42	1.1	2.6

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
East Brookfield	$23.87	$.44	1.8%	4.9%
Eastham	14.55	.10	0.7	14.3
Easthampton	34.94	.49	1.4	10.7
East Longmeadow	27.27	.19	0.7	4.1
Easton	37.18	.36	1.0	18.1
Edgartown	11.98	.06	0.5	2.7
Egremont	15.05	.07	0.5	1.4
Erving	15.90	.05	0.3	0.3
Essex	27.75	.32	1.2	1.8
Everett	40.67	.46	1.1	10.1
Fairhaven	39.58	1.24	3.1	9.9
Fall River	49.12	.99	2.0	26.4
Falmouth	23.06	.23	1.0	15.0
Fitchburg	47.04	.63	1.3	17.2
Florida	18.14	.06	0.3	9.8
Foxborough	36.77	.22	0.6	14.3
Framingham	35.45	.25	0.7	9.8
Franklin	39.92	.40	1.0	5.7
Freetown	29.23	.40	1.4	15.4
Gardner	46.48	.67	1.4	6.3
Gay Head	17.47	.13	0.7	2.2
Georgetown	29.58	.32	1.1	5.9
Gill	21.78	.31	1.4	57.8
Gloucester	39.34	.04	0.1	40.5
Goshen	17.64	.16	0.9	14.2
Gosnold	10.76	.00	0.0	4.2
Grafton	29.68	.51	1.7	18.3
Granby	29.15	.32	1.1	14.2
Granville	19.86	.09	0.5	1.4
Great Barrington	31.32	.35	1.1	3.1
Greenfield	39.11	.43	1.1	15.7
Groton	28.37	.26	0.9	26.8
Groveland	34.12	.46	1.3	3.4
Hadley	29.35	.50	1.7	38.0
Halifax	32.39	.41	1.3	2.3
Hamilton	27.97	.30	1.1	22.8
Hampden	31.74	.20	0.6	1.0
Hancock	6.59	.05	0.8	28.3
Hanover	33.02	.23	0.7	12.8
Hanson	36.85	.39	1.1	13.3
Hardwick	37.75	.76	2.0	23.7
Harvard	30.53	.23	0.8	11.4
Harwich	15.38	.15	1.0	1.5
Hatfield	23.32	.47	2.0	4.6
Haverhill	48.28	1.02	2.1	18.7
Hawley	4.77	.21	4.4	1.8

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Heath	$15.98	$.04	0.3%	1.8%
Hingham	40.31	.28	0.7	14.1
Hinsdale	17.40	.41	2.4	5.4
Holbrook	36.45	.50	1.4	5.0
Holden	28.74	.36	1.3	10.2
Holland	24.13	.14	0.6	2.8
Holliston	37.36	.35	0.9	3.3
Holyoke	44.91	.50	1.1	28.4
Hopedale	45.77	.63	1.4	6.9
Hopkinton	31.27	.40	1.3	7.9
Hubbardston	34.30	.44	1.3	10.5
Hudson	42.41	1.19	2.8	3.2
Hull	49.00	.03	0.1	8.9
Huntington	21.48	1.07	5.0	65.3
Ipswich	34.84	.37	1.1	20.5
Kingston	30.06	.45	1.5	21.4
Lakeville	26.50	.38	1.4	22.4
Lancaster	29.10	.33	1.1	24.0
Lanesborough	30.26	.44	1.5	2.0
Lawrence	49.51	.97	2.0	13.7
Lee	32.62	.45	1.4	4.9
Leicester	38.47	.96	2.5	16.8
Lenox	25.17	.37	1.5	29.4
Leominster	29.74	.36	1.2	7.9
Leverett	25.04	.34	1.4	1.3
Lexington	38.68	.18	0.5	11.4
Leyden	19.72	.34	1.7	1.3
Lincoln	27.89	.10	0.4	6.5
Littleton	25.08	.23	0.9	1.9
Longmeadow	33.92	.12	0.4	6.5
Lowell	47.45	1.30	2.7	29.5
Ludlow	30.02	.54	1.8	5.7
Lunnenburg	34.89	.40	1.1	3.1
Lynn	68.63	1.95	2.8	14.3
Lynnfield	33.48	.19	0.6	4.1
Malden	44.84	1.10	2.5	10.0
Manchester	29.46	.13	0.4	3.4
Mansfield	37.11	.40	1.1	3.0
Marblehead	27.32	.17	0.6	4.5
Marion	23.27	.18	0.8	18.1
Marlborough	37.70	.76	2.0	22.8
Marshfield	41.42	.32	0.8	2.2
Mashpee	13.75	.04	0.3	13.3
Mattapoisett	27.80	.25	0.9	1.2
Maynard	37.69	.44	1.2	3.3
Medfield	34.88	.17	0.5	14.0

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Medford	$49.61	$1.41	2.8%	36.7%
Medway	38.21	.30	0.8	4.1
Melrose	52.06	.47	0.9	7.3
Mendon	22.37	.34	1.5	9.4
Merrimac	37.35	.63	1.7	2.9
Methuen	29.71	.94	3.2	18.9
Middleborough	38.98	.57	1.5	9.2
Middlefield	14.42	.23	1.6	8.9
Middleton	34.28	.30	0.9	20.3
Milford	46.65	1.28	2.7	13.9
Millbury	41.73	1.09	2.6	9.9
Millis	39.82	.32	0.8	1.3
Millville	40.41	.89	2.2	5.2
Milton	36.29	.69	1.9	24.9
Monroe	25.27	.03	0.1	30.0
Monson	27.26	.65	2.4	20.0
Montague	36.28	.66	1.8	12.4
Monterey	11.50	.04	0.3	2.6
Montgomery	15.80	.21	1.3	1.3
Mount Washington	10.34	.00	0.0	19.8
Nahant	35.44	.47	1.3	20.0
Nantucket	13.66	.07	0.5	16.3
Natick	41.01	.32	0.8	14.2
Needham	34.18	.04	0.1	4.0
New Ashford	6.78	.04	0.6	2.7
New Bedford	45.77	1.06	2.3	19.2
New Braintree	27.15	.23	0.8	53.9
Newbury	30.91	.52	1.7	45.6
Newburyport	40.69	.55	1.4	11.1
New Marlborough	12.18	.09	0.7	3.4
New Salem	26.61	.83	3.1	32.5
Newton	49.80	.44	0.9	18.0
Norfolk	33.88	.29	0.9	53.9
North Adams	47.49	.85	1.8	27.6
Northampton	39.68	.48	1.2	37.2
North Andover	28.04	.38	1.4	19.6
North Attleborough	31.28	.41	1.3	5.9
Northborough	33.56	.23	0.7	13.6
Northbridge	35.91	.55	1.5	12.4
North Brookfield	38.34	.51	1.3	2.8
Northfield	25.34	.25	1.0	38.3
North Reading	35.17	.26	0.7	4.8
Norton	31.03	.35	1.1	39.5
Norwell	38.24	.16	0.4	1.3
Norwood	35.84	.37	1.0	5.7

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Oak Bluffs	$24.10	$.22	0.9%	11.2%
Oakham	21.01	1.11	5.3	21.8
Orange	43.05	1.52	3.5	3.6
Orleans	14.98	.05	0.3	4.6
Otis	12.45	.07	0.6	4.5
Oxford	35.29	.78	2.2	4.3
Palmer	35.78	.82	2.3	15.6
Paxton	26.56	.25	0.9	16.1
Peabody	38.57	.39	1.0	2.0
Pelham	28.39	.13	0.5	1.0
Pembroke	30.22	.40	1.3	4.2
Pepperell	33.02	.34	1.0	2.5
Peru	11.56	.03	0.3	6.3
Petersham	18.97	.33	1.7	36.9
Phillipston	17.97	.38	2.1	9.5
Pittsfield	42.14	.43	1.0	18.8
Plainfield	18.42	.68	3.7	7.8
Plainville	29.74	.39	1.3	10.1
Plymouth	26.47	.24	0.9	18.7
Plympton	28.67	.14	0.5	2.5
Princeton	28.68	.30	1.0	5.9
Provincetown	26.41	.30	1.1	3.1
Quincy	49.74	1.01	2.0	12.0
Randolph	39.36	.41	1.0	3.4
Raynham	39.19	.34	0.9	2.2
Reading	35.05	.29	0.8	5.5
Rehoboth	24.75	.22	0.9	2.4
Revere	52.04	1.41	2.7	7.4
Richmond	17.63	.11	0.6	7.3
Rochester	22.71	.27	1.2	1.5
Rockland	36.46	.57	1.6	4.7
Rockport	20.12	.22	1.1	3.8
Rowe	6.84	.00	0.0	0.6
Rowley	34.08	.26	0.8	8.3
Royalston	27.00	.78	2.9	28.7
Russell	27.10	.42	1.5	15.4
Rutland	27.63	.45	1.6	24.5
Salem	44.25	.68	1.5	20.7
Salisbury	28.18	.35	1.2	1.6
Sandisfield	9.26	.20	2.2	13.8
Sandwich	18.77	.08	0.4	12.0
Saugus	35.34	.47	1.3	2.7
Savoy	12.50	.35	2.8	1.0
Scituate	40.03	.33	0.8	3.5
Seekonk	26.24	.32	1.2	1.8
Sharon	41.93	.21	0.5	5.7

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Sheffield	$16.55	$.16	1.0%	17.8%
Shelburne	26.04	.34	1.3	7.3
Sherborn	33.35	.10	0.3	1.2
Shirley	32.10	.95	3.0	15.0
Shrewsbury	29.93	.37	1.2	9.0
Shutesbury	23.33	.12	0.5	4.1
Somerset	21.11	.12	0.6	0.6
Somerville	59.06	1.44	2.4	20.3
Southampton	25.15	.79	3.1	0.4
Southborough	31.75	.21	0.7	13.5
Southbridge	34.03	.85	2.5	25.3
South Hadley	32.48	.57	1.8	30.9
Southwick	25.28	.22	0.9	1.0
Spencer	31.56	.48	1.5	2.0
Springfield	53.41	.62	1.2	18.1
Sterling	30.65	.23	0.8	4.4
Stockbridge	21.40	.15	0.7	34.0
Stoneham	39.11	.70	1.8	23.4
Stoughton	37.95	.36	0.9	6.2
Stow	35.69	.20	0.6	4.0
Sturbridge	31.08	.22	0.7	13.3
Sudbury	37.69	.11	0.3	6.1
Sunderland	20.10	.26	1.3	3.0
Sutton	24.88	.40	1.6	2.6
Swampscott	38.41	.32	0.8	4.1
Swansea	26.31	.41	1.6	8.3
Taunton	39.32	1.13	2.9	33.7
Templeton	25.31	.74	2.9	36.8
Tewksbury	30.44	.62	2.0	36.7
Tisbury	19.72	.20	1.0	3.9
Tolland	12.12	.04	0.3	36.6
Topsfield	30.32	.14	0.5	8.8
Townsend	27.34	.49	1.8	16.5
Truro	10.38	.04	0.4	5.3
Tyngsborough	34.58	.61	1.8	42.3
Tryingham	9.22	.07	0.8	1.9
Upton	32.96	.54	1.6	36.9
Uxbridge	29.30	1.10	3.8	14.6
Wakefield	40.40	.69	1.7	7.7
Wales	25.33	.41	1.6	1.5
Walpole	41.12	.34	0.8	5.2
Waltham	38.03	.21	0.6	19.6
Ware	37.40	1.12	3.0	23.0
Wareham	30.05	.28	0.9	5.5
Warren	31.56	.59	1.9	14.4
Warwick	24.42	.44	1.8	12.9

City or Town	Estimated Equalized Property Tax Rate Fiscal Year 1975[a] ($ per $1,000)	Decrease in Tax Rate with 50% State Reimbursement of Abatements[b]		Estimated Percentage Exempt of Non-Municipal Assessed Valuation, 1972[c]
		$ Amount	% Decrease	
Washington	$11.45	$.14	1.2%	20.1%
Watertown	51.02	.95	1.9	18.2
Wayland	38.87	.34	0.9	3.4
Webster	33.54	1.30	3.9	9.7
Wellesley	35.40	.15	0.4	18.3
Wellfleet	11.82	.10	0.8	1.8
Wendell	22.74	.25	1.1	9.3
Wenham	27.81	.13	0.5	21.2
Westborough	37.64	.17	0.5	11.2
West Boylston	26.92	.35	1.3	8.8
West Bridgewater	37.34	.34	0.9	1.9
West Brookfield	27.05	.45	1.7	0.8
Westfield	34.20	.31	0.9	17.4
Westford	37.02	.32	0.9	0.9
Westhampton	23.88	.29	1.2	46.1
Westminster	24.15	.40	1.7	10.5
West Newbury	32.86	.38	1.2	23.2
Weston	34.57	.01	0.0	11.1
Westport	23.22	.48	2.1	5.7
West Springfield	28.53	.31	1.1	8.2
West Stockbridge	23.33	.44	1.9	0.6
West Tisbury	14.02	.04	0.3	11.6
Westwood	39.45	.14	0.4	3.7
Weymouth	41.10	.22	0.5	7.5
Whately	17.17	.27	1.6	2.4
Whitman	40.38	.55	1.4	2.2
Wilbraham	32.98	.22	0.7	8.3
Williamsburg	31.70	.52	1.6	4.9
Williamstown	35.63	.36	1.0	38.4
Wilmington	34.58	.26	0.8	1.1
Winchendon	56.83	.74	1.3	12.3
Winchester	43.48	.20	0.5	6.2
Windsor	32.08	.25	0.8	8.2
Winthrop	36.75	.51	1.4	12.0
Woburn	36.12	.66	1.8	9.1
Worcester	64.23	1.18	1.8	32.1
Worthington	17.01	.31	1.8	8.7
Wrentham	32.97	.26	0.8	40.8
Yarmouth	17.42	.19	1.1	9.8

NOTES:

[a]City and town 1975 tax rates converted to an equalized basis using 1974 assessment ratios computed from Department of Corporations and Taxation data.

[b]Calculations based on abatement data for 1972.

[c]Assessed valuation of tax-exempt non-municipal property as a percentage of total taxable non-municipal assessed valuation for 1972.

Source: Data from the Massachusetts Department of Corporations and Taxation.

DISTRICT POWER EQUALIZING FORMULAS*

District power equalizing formulas tend to be more complex than those of the foundation programs and flat grants which have dominated state aid in the past. In particular, DPE formulas can take several different forms. It may therefore be helpful to review these various forms, both to clarify what is being discussed and to serve as a reference for the formulas described in the text.

First of all, the state aid described below is largely non-categorical aid, not restricted for any particular purpose. Most of the new bills have also changed programs of categorical aid — for construction, transportation, school lunches, etc. — but, except for construction aid, these sources of state revenue are less important both quantitatively and in terms of existing resource disparities. Referring only to non-categorical aid, the most important distinction is that between matching aid, which depends on the level of local revenue raised, and non-matching aid. State aid can be described by the expression

$$(1) \quad S = m \cdot L + A$$

where m is the matching rate applied to local revenue, m . L is matching aid, and A is non-matching aid. S and L represent state and local revenue per pupil.

In the most general form of district power equalizing, total expenditures or revenues are assumed to be a function of the local tax rate T[1/] only:

$$(2) \quad S + L = f(T)$$

or, assuming f to be a linear function,

$$(3) \quad S + L = k \quad T$$

where k is constant across all districts. In this form, district power equalizing appears to grant each district the same effective property valuation value per pupil,[2/] since the total revenue is the same as that raised by a district with property value per pupil of k. Equivalently, subtracting L from both sides of equation (3) and substituting in L = T . P, where P is district property valuation per pupil, one gets

$$(4) \quad S = (k - P) \cdot T$$

This form makes it clear that state aid makes up the difference (or takes away the difference) between what the local tax rate would raise with actual local property valuation P and what would be raised with valuation per pupil of k. Equivalently, substituting T = L/P into equation (4), one gets

APPENDIX 7-1 (cont'd)

$$(5) \quad S = (k/P - 1) \cdot L$$

from which the matching rate is evidently $(k/P - 1)$, which is negative if P is greater than k. Finally, multiplying equation (5) through by P/k, adding S to both sides, and rearranging terms yields

$$(6) \quad S = (1 - P/k) \cdot (S + L)$$

which is recognizable as the usual percentage equalizing formula. This is often expressed with $= \bar{P}/c$, where $\bar{P}$ is state average property valuation per pupil:[3]

$$(7) \quad S = (1 - c \cdot P/\bar{P}) (S + L).$$

In the equivalent forms given in equations (3),(4), (5), (6) and (7) the expression for state aid can be negative for districts with high property valuation. This implies that wealthy districts must remit revenues to the state, instead of receiving state aid — a process usually termed recapture. The case where state aid is constrained to be non-negative has sometimes been considered a separate formula.[4] However, in such a case, where relatively wealthy districts are allowed to keep all the revenue generated by their property base, the DPE condition of equation (2) is not satisfied: total revenue is a function of the tax rate only for those districts with property valuation per pupil less than k, and for wealthier districts, total revenue depends on property valuation. This restriction applies to all of the programs described, except those of Maine and Wisconsin.

FOOTNOTES

1. The tax rate will be measured in mills, and property valuation will therefore be measured in thousands of dollars.

2. See Grubb (11), Grubb and Michelson (13), or Feldstein (9) on this point.

3. Note that percentage equalizing (equation (6)) and district power equalizing (equation (3)) are mathematically identical. But these formulations ignore federal revenue, and for good reason. If the left side of equation (3) is replaced with $S + L + F$, where F is federal revenue per pupil, the resulting formula is

$$(1) \quad S = (k/P - 1) \cdot L - F$$

   which means that state aid is reduced by the amount of federal aid. If $S + L$ on the right side of equation (6) is replaced by $S + L + F$, then state aid is

$$(2) \quad S = (k/P - 1) \cdot L + (k/P - 1) \cdot F$$

   indicating that the state matches federal aid at the same rate which it matches local revenue. In describing the new state formulas, cases where federal revenues are included in this manner will be noted.

4. Such a formula has been labeled a "resource equalizer" in Benson (3).

References cited in original:
(3) Benson, Charles, The Cheerful Prospect.
(9) Feldstein, Martin, "Wealth Neutrality and Local Choice in Public Education," Harvard Institute of Economic Research, Discussion Paper No. 293, July 1973.
(11) Grubb, W. Norton, "Intergovernmental Aid and Resource Disparities: School Finance in Massachusetts," unpublished draft, Childhood and Government Project, Berkeley, August 1973.
(13) Grubb, W. Norton and Stephan Michelson, States and Schools: The Political Economy of Resource Disparities, forthcoming.

APPENDIX 7-1 (cont'd)

Expenditure per pupil (dollars)

Example A:
Proportional Schedule

Effort index (percent)ᵃ

Expenditure per pupil (dollars)

Example B:
Variable Schedule

Effort index (percent)ᵃ

Expenditure per pupil (dollars)

Example C:
Discontinuous Schedule

Effort index (percent)ᵃ

Expenditure per pupil (dollars)

Example D:
Progressive Schedule

Poor district

Rich district

Effort index (percent)ᵃ

a. If the value of property per pupil is chosen as the measure of local fiscal capacity, the effective school property tax rate is the corresponding index of effort; if income per pupil is chosen as the measure of ability to pay, school tax revenues divided by income is the appropriate index of effort.

Source: The charts are from Reinschauer and Hartman, Reforming School Finance, op. cit., p. 85; the following notes are based on the accompanying text.

Notes:
EXAMPLE A: Proportional Schedule. Any increase in spending levels requires a proportional increase in tax effort.
EXAMPLE B: Variable Schedule. Returns to greater effort are greater than proportional at low levels and less than proportional beyond a certain point, with the intention of discouraging excessively low or high spending levels.
EXAMPLE C: Discontinuous Schedule. Designed to encourage roughly equivalent spending levels across districts, since greater effort beyond the point of discontinuity would yield only marginally higher spending levels for a large increase in effort.
EXAMPLE D: Progressive Schedule. The guaranteed return for any level of effort is inversely related to local wealth or income; designed to compensate for different effective burdens on individuals or anticipated differences in preferences (tastes) for or expected pay-offs from schooling.

APPENDIX 7-2

SUMMARY OF NEW SCHOOL FINANCE PROGRAMS

State	Basic Aid Type	Non-Matching Aid	Effective State Property Tax Rate	Percentage Equalized Aid	Minimum[1] Aid	Budget Limits & Tax Ceilings	Voter Override	Recapture
California S.B. 90; A.B. 1267	Foundation Plan	$765 (Elem) @ 2.23 mills $950 (High) @ 1.64 mills	None	None	$125	Different % for high and low spending districts	Yes[3]	No
Colorado H.B. 1562	D.P.E.	None	None	$25/mill	$8/mill	7-12% increase depending on wealth	Yes[4]	No
Florida H.B. 734	Large non-matching grant plus smaller D.P.E. grant	$579 @ 7 mills	7 mills	$41/mill between 7 and 10 mills	No	10 mill ceiling	No	No
Illinois H.B. 1484	Foundation program with D.P.E. option	$520 @ 8.4 mills (foundation)	None	$42/mill (unified Dist.) (D.P.E. option)	$48 per pupil[9]	millage limits	Yes[5]	No
Kansas S.B. 92	D.P.E.	None	None	Yes (see text)	No	5-15% depending on budget size	Yes[6]	No
Maine ch 5,10 of Title 20	Large non-matching grant plus smaller D.P.E. grant	$600 (Elem) $915 (High)	14 mills	$50/mill up to 2½ mills	No	millage ceiling	No	Yes
Michigan S.B. 110	D.P.E.	None	None	$38/mill	No	mill limits for 2 years[2]	Yes[5]	No
Montana H.B. 428	Large non-matching grant plus smaller D.P.E. grant	80% of General Fund Budget (GFB)	40 mills	2-2/9% of GFB (elementary) & 3-1/3% of GFB (secondary) per mill	No	7% Budget Increase limit. Millage limits on D.P.E. Provision	Yes[5]	No
North Dakota S.B. 2026	Foundation Plan	$540 @ 20 mills	None	None	No	44 mill ceiling	Yes[5]	No
Utah S.B. No. 72; H.B. 105, 106	Large non-matching grant plus smaller D.P.E. grant	$508 @ 28 mills	28 mills	$4/mill between 28 and 38 mills	No	38 mill ceiling	No	No
Wisconsin 1973 A.B. 300	D.P.E.	None	None	$71.2/mill (unified dist)	No	$55/pupil increase	No	Yes (after 2 yrs.)

APPENDIX 7-2 (cont'd)

State	Phase in Period	Save Harmless	Duration of Save Harmless Provisions	Cost of Living or Other Long Term Escalators	Circuit Breaker for Property Taxes	Program Cost Weights	Additional Aid for Compensatory Education	Area Cost Weights	Construction & Building Fund Aid
California S.B. 90; A.B. 1267	Yes	No	–	No	No	Yes	Yes	Yes—for necessarily small schools	No
Colorado H.B. 1562	3 years	Minimum aid for very poor districts	1 year	No	No	No	Yes	For small rural and large urban districts	No
Florida H.B. 734	1 year	Yes	1 year	Yes[7]	No	Yes	Yes	Yes[7]	Yes
Illinois H.B. 1484	4 years	Optional Program for Rich Dist.	Indefinite	No	No	Yes[8]	Yes	Yes[8]	No
Kansas S.B. 92	No	No	–	No	No[10]	No	No	Yes—based on district size	No
Maine ch 5,10 of Title 20	3 years	Yes—applicable to both expenditures and tax rates	3 years (est.)	No	No	No	No	Yes	Yes
Michigan S.B. 110	3 years	Yes (see text)	Reduced over 3 years	No	Yes	No	No	Correction for municipal over-burden	Yes— D.P.E. formula
Montana H.B. 428	No	No	–	No	No	Yes	No	No	No
North Dakota S.B. 2026	No	No	–	No	No	Yes	No	Yes	No
Utah S.B. No. 72; H.B. 105, 106	No	No	–	No	No	Yes	Yes	Yes—for very small schools	Yes— D.P.E. formula
Wisconsin 1973 A.B. 300	Yes	Yes	Decrease over 8 years	No	No	No	Yes	No	Yes

[1] This column is concerned with specific dollar guarantees, as opposed to save harmless provisions.

[2] This limit is only a ceiling on the level of tax which will be equalized by the state. Districts are free to exceed this limit; however, revenues above the limit are not equalized.

[3] Note that the foundation participation rate is low, leaving considerable leeway for supplemental local levies. Districts are free to set their own tax rate within the parameters of the new budget expansion regulations.

[4] After the first year of operation (1973-74) voter approved budget increases will qualify for equalization under the D.P.E. plan.

[5] Amounts raised under the voter override provision are not equalized by the state.

[6] High spending districts may override the 5% limit, but no district may exceed the 15% ceiling.

[7] Cost of living adjustment — index differs by district.

[8] Title 1 pupils are weighted as 1.35. Since there is no guarantee that these monies will be spent for compensatory education, the provision acts as an increase in general aid to districts with high Title I concentrations. Also, very large and very small districts are affected by special provisions.

[9] The D.P.E. option in Illinois is superimposed on a basic foundation program which remains in effect for wealthier districts. This foundation option guarantees a $48 minimum grant.

[10] While there is no circuit breaker provision, the Kansas income tax rebate does supplement, to some extent, local property taxes.

Source: Grubb, W. Norton, New Programs of State School Aid, op. cit., pp. 4-5.

APPENDIX 7-3

Simulation of Allocation-Type School Finance Plans
With Statewide Property Tax

Desired current expenditures per "weighted pupil" on the basic educational program in each district, X_i, is estimated as:

$$X_i = \frac{LPTS_i + Ch.\ 70_i + PL874_i}{WP_i}, \text{ where}$$

$LPTS_i$ = projected local property taxes for schools;

$Ch.\ 70_i$ = Chapter 70 aid;

$PL874_i$ = P.L. 874 Federal aid (to federally impacted areas)

WP_i = number of "weighted pupils."

A target spending level, T, is set, arbitrarily, at $1,000, which is roughly 90% of the state average spending from local taxes and Ch. 70 aid per weighted pupil.

The per pupil grant or allocation to each district, G_i, is determined as follows:

$$G_i = T + \tfrac{1}{2}[X_i - T]$$

For purposes of the simulation, it is assumed that districts will maintain their spending levels, X_i, so that if $X_i > G_i$ they will raise taxes locally for supplementation of their state allocation. Local supplementation is equalized. The "valuation ratio" for each district, VR_i, is the district's equalized valuation per pupil relative to the state average, i.e.

$$VR_i = \frac{EV_i/WP_i}{\Sigma EV_i/\Sigma WP_i}$$

If the state is committed to paying 50% of the costs of local supplementation for a district of "average wealth," the "state aid percentage" for any given district is

$$SAP_i = (1 - .5VR_i)$$

Local property taxes for supplementation, $SLPTS_i$, in any district where $X_i > G_i$ are equal to

$$SLPTS_i = [X_i - G_i](.5VR_i)(WP_i),$$

and equalizing aid for supplementation, $EQAID_i$, is

$$EQAID_i = [X_i - G_i](SAP_i)(WP_i).$$

APPENDIX 7-3 (cont'd)

The sum of $SLPTS_i$ and $EQAID_i$ is equal to $[X_i-G_i](WP_i)$, the amount needed to raise spending to the desired level.[1] Note that $EQAID_i$ will be negative for any district where $VR_i>2$, implying payment of funds by the district to the state.

The cost to the state of the program is equal to the sum of the basic per-pupil grants, $\Sigma(G_i \times WP_i)$, plus net equalizing aid.

Each district's total school tax rate is equal to the uniform statewide rate plus its supplementary local rate ($SLPTS_i/EV_i$). A "save harmless" provision can be introduced to eliminate or limit increases in districts' school tax rates from their initial position, $LPTS_i/EV_i$. The "save harmless" constraint has the effect of reducing collections from the statewide tax, reducing "negative aid" payments[2] and thereby increasing net equalizing aid requirements, and requiring supplementary aid (non-equalizing) in order to avoid cutbacks in local spending. The cost to the state is increased correspondingly (see Table 7-2).

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[1]In determining G_i and $[X_i-G_i]$, P.L. 874 funds received per pupil are deducted.

[2]Negative aid was eliminated entirely in the simulations of allocation plans A and B reported in Table 7-2.

APPENDIX 7-4

Estimated School Finance Results Under Alternative Systems

City or Town	Estimated School Tax Rates				Allocation Plan: Per-Pupil Grant
	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for:		
			(A)$1 bil.	(B)$800 mil.	
Abington	18.48	11.53	18.27	14.62	973
Acton	19.74	16.32	19.56	15.91	1,065
Acushnet	14.36	10.78	16.36	14.36	974
Adams	22.62	17.34	18.27	14.62	955
Agawam	20.43	18.55	18.73	15.08	1,037
Alford	5.34	4.97	7.34	5.34	964
Amesbury	27.00	22.50	19.64	15.98	1,093
Amherst	23.29	21.98	20.04	16.39	1,143
Andover	22.06	20.58	19.90	16.24	1,115
Arlington	23.78	22.42	20.70	17.05	1,157
Ashburnham	20.58	15.44	18.40	14.74	1,010
Ashby	27.26	19.78	19.62	15.96	1,073
Ashfield	13.53	12.22	15.53	13.53	956
Ashland	20.26	15.82	19.03	15.37	1,052
Athol	19.15	11.83	18.27	14.62	884
Attleboro	19.77	14.02	18.27	14.62	992
Auburn	23.41	21.32	18.27	14.62	995
Avon	21.41	17.21	19.51	15.86	1,091
Ayer	15.72	9.15	17.72	15.50	331
Barnstable	8.28	7.82	10.28	8.28	1,110
Barre	26.26	18.63	18.37	14.71	1,008
Becket	12.21	11.67	14.21	12.21	1,163
Bedford	23.04	20.93	19.46	15.80	947
Belchertown	14.13	7.62	16.13	14.13	888
Bellingham	17.38	10.57	18.27	14.62	896
Belmont	18.08	17.04	20.08	17.23	1,184
Berkley	19.99	13.14	18.27	14.62	950
Berlin	27.19	20.34	19.16	15.51	1,072
Bernardston	25.56	18.63	18.73	15.08	1,038
Beverly	15.81	13.04	17.81	14.62	963
Billerica	20.01	12.33	18.37	14.71	979
Blackstone	30.53	21.97	18.35	14.70	1,006
Blandford	10.81	7.90	12.81	10.81	883
Bolton	26.11	24.75	19.20	15.54	1,072
Boston	29.38	19.21	19.16	15.51	1,064
Bourne	6.13	4.48	8.13	6.13	410
Boxborough	19.96	18.26	21.15	17.50	1,202
Boxford	15.90	11.99	17.89	14.62	968
Boylston	22.35	18.21	18.67	15.02	1,033
Braintree	18.37	15.62	18.76	15.10	1,028
Brewster	9.51	9.14	11.51	9.51	1,279
Bridgewater	26.28	18.70	19.18	15.53	1,057

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A)$1 bil.	(B)$800 mil.	Allocation Plan: Per-Pupil Grant
Brimfield	23.70	16.89	19.04	15.39	1,063
Brockton	24.16	17.17	19.85	16.19	1,120
Brookfield	23.34	17.97	18.27	14.62	909
Brookline	17.43	16.76	19.43	17.43	1,383
Buckland	21.37	13.97	19.11	15.46	1,068
Burlington	24.87	22.71	19.80	16.14	1,103
Cambridge	24.23	23.35	23.84	20.19	1,442
Canton	22.35	21.17	18.99	15.34	1,058
Carlisle	23.06	21.00	21.40	17.74	1,171
Carver	22.63	20.98	20.23	16.58	1,149
Charlemont	22.30	17.13	19.15	15.50	1,071
Charlton	17.14	11.04	18.27	14.62	883
Chatham	6.81	6.49	8.81	6.81	1,291
Chelmsford	23.72	19.54	18.30	14.64	945
Chelsea	10.88	.67	12.88	10.88	841
Cheshire	22.91	16.38	18.27	14.62	962
Chester	19.89	14.86	19.28	15.63	1,082
Chesterfield	20.43	18.31	18.27	14.62	947
Chicopee	15.67	9.45	17.67	14.62	823
Chilmark	4.48	4.31	6.48	4.48	1,181
Clarksburg	27.15	19.24	18.36	14.70	1,007
Clinton	15.06	10.78	17.06	15.06	1,023
Cohasset	20.80	19.54	18.29	14.63	999
Colrain	19.39	16.49	19.16	15.50	1,072
Concord	25.45	24.19	21.98	18.32	1,243
Conway	12.79	9.39	14.79	12.79	975
Cummington	14.30	13.28	16.30	14.30	1,088
Dalton	23.15	15.88	19.47	15.82	1,067
Danvers	21.31	19.16	20.09	16.44	1,136
Dartmouth	17.28	16.33	18.42	14.76	1,012
Dedham	17.20	16.15	18.40	14.75	992
Deerfield	12.55	8.78	14.55	12.55	951
Dennis	6.47	6.17	8.47	6.47	1,032
Dighton	18.10	14.05	18.27	14.62	948
Douglas	17.08	12.38	18.27	14.62	943
Dover	16.99	16.21	18.99	15.96	1,102
Dracut	28.01	17.79	19.32	15.66	1,053
Dudley	19.57	14.04	18.27	14.62	977
Dunstable	14.85	11.88	16.85	14.68	1,003
Duxbury	24.41	23.18	20.46	16.81	1,178
East Bridgewater	23.60	18.26	18.98	15.33	1,057
East Brookfield	14.69	9.44	16.69	14.62	891
Eastham	8.51	8.13	10.51	8.51	1,265
Easthampton	19.79	16.09	19.08	15.42	1,056
East Longmeadow	18.37	15.17	18.48	14.82	1,017
Easton	26.32	20.99	19.46	15.80	1,087
Edgartown	5.13	4.88	7.13	5.13	1,182
Egremont	10.99	10.28	12.99	10.99	981
Erving	6.81	6.46	8.81	6.81	1,100

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A) $1 bil.	(B) $800 mil.	Allocation Plan: Per-Pupil Grant
Essex	15.55	14.66	17.55	14.62	890
Everett	21.97	20.98	21.94	18.28	1,283
Fairhaven	22.57	17.60	18.49	14.84	1,018
Fall River	15.91	8.63	17.91	14.62	906
Falmouth	14.30	13.62	16.30	14.30	1,024
Fitchburg	23.95	20.54	18.37	14.72	993
Florida	10.41	8.64	12.41	10.41	1,177
Foxborough	22.26	16.95	19.25	15.60	1,080
Framingham	19.25	17.50	18.77	15.11	1,015
Franklin	28.34	20.13	18.50	14.85	1,019
Freetown	20.86	16.89	18.27	14.62	997
Gardner	22.61	19.37	18.27	14.62	988
Gay Head	3.81	3.63	5.81	3.81	1,421
Georgetown	21.84	15.03	18.27	14.62	953
Gill	15.41	12.81	17.41	14.62	972
Gloucester	19.99	17.38	19.56	15.90	1,092
Goshen	12.40	10.40	14.39	12.39	912
Gosnold	1.99	1.76	3.99	1.99	942
Grafton	21.42	16.25	18.27	14.62	951
Granby	19.70	11.70	18.27	14.62	919
Granville	12.56	11.32	14.56	12.56	810
Great Barrington	20.21	18.80	18.52	14.86	1,006
Greenfield	18.87	16.84	18.27	14.62	998
Groton	20.02	16.06	19.77	16.12	1,056
Groveland	26.76	16.44	18.34	14.69	995
Hadley	19.72	18.36	19.43	15.77	1,058
Halifax	10.60	7.15	12.60	10.60	784
Hamilton	18.18	15.34	18.27	14.62	986
Hampden	24.85	18.45	18.27	14.62	960
Hancock	4.40	1.21	6.40	4.40	774
Hanover	20.65	14.58	18.97	15.31	1,046
Hanson	24.30	18.64	19.36	15.70	1,081
Hardwick	29.29	21.86	18.50	14.85	1,018
Harvard	20.49	19.43	19.84	16.19	1,077
Harwich	7.61	7.20	9.61	7.61	1,083
Hatfield	13.13	11.22	15.13	13.13	889
Haverhill	26.96	21.31	18.91	15.25	1,033
Hawley	4.30	2.31	6.30	4.30	795
Heath	8.41	7.57	10.41	8.41	847
Hingham	20.39	16.96	18.88	15.23	1,044
Hinsdale	15.73	11.36	17.73	15.43	1,052
Holbrook	20.06	13.05	18.27	14.62	857
Holden	18.60	15.54	18.44	14.79	1,014
Holland	17.16	15.83	19.16	15.72	1,089
Holliston	29.13	25.41	19.73	16.08	1,115
Holyoke	17.38	12.49	18.27	14.62	908
Hopedale	28.26	25.05	18.67	15.01	1,032
Hopkinton	19.24	16.56	18.38	14.72	1,008
Hubbardston	25.97	21.27	19.01	15.36	1,060

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A) $1 bil.	(B) $800 mil.	Allocation Plan: Per-Pupil Grant
Hudson	23.64	17.33	18.64	14.99	1,021
Hull	22.27	13.35	18.80	15.15	1,018
Huntington	18.01	9.20	18.49	14.83	1,018
Ipswich	20.25	17.07	18.27	14.62	950
Kingston	13.80	9.24	15.80	13.80	984
Lakeville	17.08	13.02	18.27	14.62	961
Lancaster	19.04	15.62	19.61	15.96	1,106
Lanesborough	22.70	16.49	18.61	14.96	1,005
Lawrence	19.81	14.49	18.27	14.62	929
Lee	17.08	14.57	18.27	14.62	894
Leicester	25.86	18.06	18.32	14.67	1,004
Lenox	16.70	14.55	18.70	15.49	1,039
Leominster	14.76	11.12	16.76	14.62	897
Leverett	18.55	14.59	19.81	16.16	1,124
Lexington	28.41	26.09	21.42	17.77	1,216
Leyden	10.25	4.36	12.25	10.25	910
Lincoln	16.71	15.80	18.71	16.71	1,244
Littleton	18.10	13.78	18.27	14.62	942
Longmeadow	21.10	19.67	19.05	15.40	1,063
Lowell	16.63	9.71	18.27	14.62	912
Ludlow	18.36	12.26	18.27	14.62	983
Lunenburg	22.88	17.52	18.27	14.62	890
Lynn	24.08	19.97	18.55	14.90	1,000
Lynnfield	23.62	21.98	19.99	16.34	1,126
Malden	16.62	12.63	18.27	14.62	949
Manchester	14.61	13.68	16.61	14.61	1,065
Mansfield	20.31	13.57	19.14	15.49	1,071
Marblehead	15.07	14.19	17.07	15.07	1,044
Marion	13.25	12.49	15.25	13.25	1,059
Marlborough	16.10	11.42	18.10	14.62	948
Marshfield	24.18	19.16	20.06	16.41	1,136
Mashpee	5.71	5.48	7.71	5.71	1,214
Mattapoisett	16.41	14.84	18.41	14.82	1,014
Maynard	18.07	15.21	18.60	14.95	1,002
Medfield	21.64	16.47	19.10	15.45	1,067
Medford	20.24	16.24	18.62	14.96	1,019
Medway	27.72	21.29	19.84	16.19	1,128
Melrose	28.42	26.42	19.57	15.92	1,091
Mendon	16.56	12.80	18.56	14.90	1,023
Merrimac	25.13	14.23	18.27	14.62	955
Methuen	14.27	10.47	16.27	14.27	925
Middleborough	19.79	13.59	18.27	14.62	954
Middlefield	10.44	9.84	12.44	10.44	1,059
Middleton	23.46	18.39	19.08	15.43	1,038
Milford	22.10	18.17	18.77	15.12	1,020
Millbury	22.51	16.14	18.27	14.62	988
Millis	23.91	20.15	18.50	14.85	1,019
Millville	29.39	17.41	18.27	14.62	936

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A) $1 bil.	(B) $800 mil.	Allocation Plan: Per-Pupil Grant
Milton	16.20	15.19	18.20	16.20	1,121
Monroe	9.20	8.72	11.20	9.20	838
Monson	22.62	16.97	18.53	14.88	1,021
Montague	19.06	13.39	18.27	14.62	975
Monterey	4.73	4.31	6.73	4.73	844
Montgomery	12.77	7.88	14.77	12.77	931
Mount Washington	1.53	1.38	3.53	1.53	887
Nahant	17.28	15.87	18.41	14.76	914
Nantucket	4.87	4.54	6.87	4.87	966
Natick	23.76	21.83	19.14	15.48	1,059
Needham	19.30	18.11	19.94	16.28	1,119
New Ashford	5.43	4.85	7.43	5.43	817
New Bedford	16.69	10.90	18.27	14.62	956
New Braintree	15.13	9.50	17.13	14.62	862
Newbury	23.12	16.01	19.14	15.49	1,051
Newburyport	23.89	18.81	19.27	15.62	1,074
New Marlborough	8.73	8.13	10.73	8.73	915
New Salem	14.09	7.12	16.09	14.09	953
Newton	26.34	25.23	22.72	19.06	1,347
Norfolk	20.86	16.36	18.47	14.81	1,016
North Adams	19.60	13.38	18.27	14.62	912
Northampton	23.40	20.89	19.65	16.00	1,079
North Andover	14.97	12.79	16.97	14.97	1,025
North Attleborough	17.92	12.87	18.27	14.62	981
Northborough	23.26	17.05	18.48	14.82	1,007
Northbridge	21.42	15.55	18.27	14.62	884
North Brookfield	29.15	20.60	18.27	14.62	976
Northfield	17.03	15.77	18.27	14.62	990
North Reading	21.57	15.86	18.49	14.84	999
Norton	21.89	16.76	19.06	15.41	1,064
Norwell	25.23	21.45	20.34	16.69	1,151
Norwood	19.67	15.97	18.68	15.02	1,033
Oak Bluffs	10.67	10.14	12.67	10.67	1,222
Oakham	11.76	7.71	13.76	11.76	960
Orange	30.27	17.57	18.27	14.62	943
Orleans	5.99	5.67	7.99	5.99	1,194
Otis	7.89	7.32	9.89	7.89	965
Oxford	23.94	12.29	18.27	14.62	969
Palmer	22.32	19.41	18.27	14.62	927
Paxton	18.14	15.55	18.27	14.62	908
Peabody	19.76	15.55	18.46	14.80	1,004
Pelham	22.76	21.46	19.57	15.91	1,104
Pembroke	18.58	11.61	18.42	14.76	1,004
Pepperell	24.37	17.09	19.01	15.36	1,021
Peru	10.44	9.99	12.44	10.44	1,200
Petersham	11.94	8.97	13.94	11.94	811
Phillipston	12.86	3.99	14.86	12.86	889

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A)$1 bil.	(B)$800 mil.	Allocation Plan: Per-Pupil Grant
Pittsfield	20.99	17.13	18.74	15.08	981
Plainfield	10.02	8.86	12.02	10.02	762
Plainville	18.30	12.06	18.38	14.72	1,009
Plymouth	13.16	12.57	15.16	13.16	1,192
Plympton	14.19	12.29	16.19	14.19	944
Princeton	19.57	15.60	18.27	14.62	962
Provincetown	10.35	9.79	12.35	10.35	1,077
Quincy	21.20	18.15	19.73	16.08	1,074
Randolph	17.36	10.44	18.36	14.71	997
Raynham	30.80	25.00	19.48	15.82	1,086
Reading	20.12	16.68	18.83	15.18	1,019
Rehoboth	19.09	14.55	18.97	15.31	1,029
Revere	21.78	18.04	19.56	15.90	1,094
Richmond	13.54	11.18	15.54	13.54	978
Rochester	16.90	14.78	18.61	14.95	1,026
Rockland	21.15	12.32	18.46	14.81	1,011
Rockport	9.75	9.16	11.75	9.75	1,094
Rowe	2.60	2.55	4.60	2.60	2,520
Rowley	26.22	22.36	19.56	15.90	1,097
Royalston	17.40	12.46	18.27	14.62	947
Russell	21.11	17.68	18.86	15.20	1,047
Rutland	17.90	13.19	18.27	14.62	961
Salem	18.72	16.96	19.12	15.47	1,066
Salisbury	17.75	16.75	18.27	14.62	972
Sandisfield	6.49	5.99	8.49	6.49	894
Sandwich	7.51	7.18	9.51	7.51	1,206
Saugus	19.41	17.80	18.27	14.62	947
Savoy	8.21	6.98	10.21	8.21	939
Scituate	18.14	13.18	18.27	14.62	955
Seekonk	17.46	13.52	18.49	14.84	1,018
Sharon	25.30	23.60	18.63	14.97	1,027
Sheffield	12.27	11.36	14.27	12.27	942
Shelburne	20.47	15.85	18.67	15.01	1,032
Sherborn	24.67	23.64	19.36	15.70	1,082
Shirley	10.33	4.30	12.33	10.33	776
Shrewsbury	17.51	13.48	18.27	14.62	990
Shutesbury	12.30	11.50	14.30	12.30	999
Somerset	12.38	11.77	14.38	12.38	1,105
Somerville	19.34	13.62	18.27	14.62	957
Southampton	18.10	13.29	18.61	14.96	1,022
Southborough	19.53	16.46	19.07	15.42	1,062
Southbridge	16.93	12.66	18.27	14.62	922
South Hadley	21.40	16.08	18.27	14.62	971
Southwick	17.91	12.72	18.27	14.62	962
Spencer	16.35	10.37	18.27	14.62	889
Springfield	24.56	17.06	18.77	15.11	1,023
Sterling	20.55	17.60	18.27	14.62	982

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A)$1 bil.	(B)$800 mil.	Allocation Plan: Per-Pupil Grant
Stockbridge	12.20	11.42	14.20	12.20	1,072
Stoneham	20.92	18.33	19.37	15.71	1,076
Stoughton	23.24	18.90	18.27	14.62	987
Stow	24.98	20.54	19.68	16.02	1,092
Sturbridge	19.27	16.66	18.36	14.70	1,007
Sudbury	25.91	23.21	19.71	16.06	1,088
Sunderland	11.06	10.18	13.06	11.06	936
Sutton	17.19	11.91	18.36	14.70	998
Swampscott	19.37	18.14	18.99	15.33	1,038
Swansea	15.35	12.36	17.35	14.62	942
Taunton	16.55	11.07	18.27	14.62	960
Templeton	14.39	2.88	16.39	14.39	881
Tewksbury	16.57	9.97	18.27	14.62	916
Tisbury	10.98	10.46	12.98	10.98	1,278
Tolland	5.36	5.01	7.36	5.36	1,030
Topsfield	21.52	16.71	19.54	15.88	1,073
Townsend	17.56	11.21	18.27	14.62	930
Truro	4.47	4.21	6.47	4.47	1,088
Tyngsborough	22.34	18.03	18.38	14.73	992
Tyringham	4.83	4.42	6.83	4.83	985
Upton	19.56	11.92	18.27	14.62	962
Uxbridge	15.87	10.27	17.87	14.62	903
Wakefield	20.15	18.74	18.30	14.65	987
Wales	18.51	12.35	18.27	14.62	982
Walpole	26.59	22.58	20.54	16.88	1,184
Waltham	19.84	18.65	19.57	15.91	1,087
Ware	22.04	16.74	18.27	14.62	916
Wareham	15.51	14.74	17.51	14.96	1,009
Warren	20.49	13.08	18.27	14.62	947
Warwick	14.01	12.89	16.01	14.01	941
Washington	7.40	4.08	9.40	7.40	916
Watertown	19.77	18.40	19.08	15.42	1,035
Wayland	24.38	22.30	19.50	15.85	1,099
Webster	19.06	15.33	18.27	14.62	894
Wellesley	20.42	19.39	20.53	16.88	1,183
Wellfleet	6.33	6.05	8.33	6.33	1,218
Wendell	12.53	7.67	14.53	12.53	864
Wenham	17.20	16.18	18.35	14.70	1,000
Westborough	25.59	24.37	20.34	16.69	1,132
West Boylston	16.21	12.37	18.21	14.84	1,018
West Bridgewater	23.00	18.57	19.28	15.63	1,073
West Brookfield	20.14	16.65	18.27	14.62	961
Westfield	17.44	12.82	18.27	14.62	985
Westford	21.11	15.06	18.27	14.62	942
Westhampton	15.39	13.64	17.39	14.62	947
Westminster	15.97	12.73	17.97	14.69	1,006
West Newbury	26.62	19.70	19.22	15.56	1,064

APPENDIX 7-4 (cont'd)

City or Town	Present System	Present Plus Extra $200 mil. Ch. 70	Allocation Plan, Statewide Prop. Tax Set for: (A)$1 bil.	(B)$800 mil.	Allocation Plan: Per-Pupil Grant
Weston	21.47	20.64	23.47	19.86	1,426
Westport	12.32	9.64	14.32	12.32	970
West Springfield	14.89	13.78	16.89	14.62	948
West Stockbridge	20.85	17.27	19.36	15.71	1,084
West Tisbury	7.61	7.33	9.61	7.61	1,278
Westwood	23.23	21.99	20.90	17.24	1,213
Weymouth	18.66	14.99	18.27	14.62	931
Whatley	11.93	10.52	13.93	11.93	1,023
Whitman	26.63	18.91	18.86	15.21	1,045
Wilbraham	22.72	17.59	18.94	15.28	1,047
Williamsburg	24.01	16.19	19.48	15.83	1,058
Williamstown	25.49	24.07	19.65	16.00	1,104
Wilmington	22.36	19.04	18.96	15.31	1,033
Winchendon	36.13	28.46	18.27	14.62	920
Winchester	25.62	24.21	20.76	17.10	1,185
Windsor	20.74	17.04	18.27	14.62	982
Winthrop	13.73	9.37	15.73	13.73	896
Woburn	15.10	11.68	17.10	14.62	930
Worcester	26.77	19.19	19.94	16.29	1,131
Worthington	13.51	11.10	15.51	13.51	975
Wrentham	20.10	15.35	18.59	14.94	1,026
Yarmouth	8.53	8.04	10.53	8.53	979

NOTES: Col. (1) Estimated equalized school tax rates, fiscal year 1975.
Col. (2) Rates under the present system reduced by a pro-rata increase of $200 million in Ch. 70 entitlements (i.e., amounts determined under the present formula and appearing on the 1975 Cherry Sheets).
Col. (3) Rates resulting from a simulated allocation plan with a statewide school tax rate set to yield $1 billion, but constrained so that no locality's total school tax rate (including state rate plus local rate required for supplementation) increases more than $2 per thousand.
Col. (4) Same as Col. (3), but with a statewide rate set to yield $800 million and a constraint that no locality's total school tax rate increases.
Col. (5) Per-pupil grant amounts (G_i) under the allocation-type plan specified in Appendix 7-3.

Nonschool Tax Rates:
Present Versus Alternative Distribution Formulas

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Abington	14.12	9.28	8.29	8.80	10.94
Acton	11.61	10.21	9.41	9.81	9.78
Acushnet	8.96	5.55	4.51	4.51	6.56
Adams	22.81	12.60	14.09	13.35	17.52
Agawam	12.69	9.38	8.21	8.80	10.04
Alford	6.17	5.82	5.00	5.41	5.12
Amesbury	17.93	12.81	11.61	12.22	13.67
Amherst	9.94	8.30	7.99	8.15	8.66
Andover	12.97	11.25	10.51	10.89	10.90
Arlington	23.10	19.32	19.18	19.26	19.15
Ashburnham	10.14	7.03	5.28	6.16	7.76
Ashby	5.83	4.51	4.51	4.51	4.51
Ashfield	4.52	4.51	4.51	4.51	4.51
Ashland	13.24	10.55	9.12	9.84	10.41
Athol	19.17	7.75	10.46	9.11	14.97
Attleboro	21.42	16.45	16.09	16.28	17.07
Auburn	12.49	8.91	7.72	8.32	9.82
Avon	13.28	10.72	9.05	9.89	10.29
Ayer	26.67	24.42	23.84	24.14	22.40
Barnstable	5.34	5.12	4.51	4.68	4.51
Barre	12.71	4.51	4.51	4.51	9.64
Becket	3.31	3.31	3.31	3.31	3.31
Bedford	13.91	11.95	11.15	11.56	11.58
Belchertown	11.32	5.99	4.51	4.71	8.02
Bellingham	17.83	11.89	10.69	11.30	13.39
Belmont	19.04	17.04	16.83	16.94	16.51
Berkley	8.73	4.51	4.51	4.51	6.61
Berlin	11.15	7.10	5.82	6.47	8.64
Bernardston	8.62	4.51	5.98	4.83	7.75
Beverly	21.83	18.52	17.73	18.13	17.65
Billerica	15.49	11.35	9.40	10.38	11.55
Blackstone	12.53	4.62	4.51	4.57	9.50
Blandford	7.54	5.83	4.51	5.00	5.88
Bolton	8.89	7.41	5.91	6.67	7.04
Boston	105.60	84.77	93.83	89.30	82.48
Bourne	11.35	10.73	9.62	10.18	9.25
Boxborough	10.55	9.70	8.32	9.02	8.39
Boxford	11.35	9.94	9.40	9.67	9.77
Boylston	10.40	6.94	5.93	6.44	8.27
Braintree	15.28	13.23	11.93	12.59	12.24
Brewster	11.69	11.52	10.57	11.05	8.99
Bridgewater	12.80	8.04	6.45	7.26	9.63
Brimfield	6.68	4.51	4.51	4.51	5.10
Brockton	27.45	22.63	22.16	22.40	21.83
Brookfield	8.56	4.51	4.51	4.51	6.54
Brookline	33.46	31.43	31.75	31.59	30.04

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Buckland	7.11	4.51	4.51	4.51	5.51
Burlington	17.21	15.61	13.80	14.72	13.26
Cambridge	48.17	44.34	44.63	44.49	40.77
Canton	15.89	14.12	12.98	13.55	12.93
Carlisle	8.80	7.65	7.04	7.34	7.57
Carver	9.81	8.70	6.46	7.59	7.16
Charlemont	1.89	1.89	1.89	1.89	1.89
Charlton	7.64	4.51	4.51	4.51	5.75
Chatham	6.96	6.76	5.79	6.28	5.41
Chelmsford	9.62	6.05	5.62	5.84	7.89
Chelsea	78.55	58.99	66.90	62.94	60.98
Cheshire	4.14	4.14	4.14	4.14	4.14
Chester	4.27	4.27	4.27	4.27	4.27
Chesterfield	6.23	4.81	4.51	4.51	4.51
Chicopee	21.80	13.09	13.82	13.46	16.79
Chilmark	6.74	6.67	5.66	6.17	4.51
Clarksburg	5.71	4.51	4.51	4.51	4.51
Clinton	17.66	11.99	11.53	11.77	13.79
Cohasset	13.31	11.78	11.19	11.49	11.38
Colrain	1.79	1.79	1.79	1.79	1.79
Concord	11.75	10.38	9.88	10.13	10.16
Conway	5.65	4.51	4.51	4.51	4.51
Cummington	7.47	6.18	4.51	5.31	5.77
Dalton	13.82	8.22	7.93	8.08	10.89
Danvers	14.37	11.80	10.46	11.14	11.39
Dartmouth	10.16	8.21	6.79	7.51	8.07
Dedham	14.49	12.32	11.24	11.79	11.78
Deerfield	6.32	4.51	4.51	4.51	5.00
Dennis	6.41	6.25	5.36	5.81	4.99
Dighton	11.94	8.31	7.16	7.74	9.39
Douglas	9.40	5.52	4.51	4.75	7.19
Dover	11.09	10.31	10.08	10.20	10.01
Dracut	12.48	4.51	4.51	4.51	9.54
Dudley	6.15	4.51	4.51	4.51	4.84
Dunstable	4.95	4.51	4.51	4.51	4.51
Duxbury	16.74	15.68	14.67	15.18	13.87
East Bridgewater	13.41	9.92	8.34	9.14	10.32
East Brookfield	9.18	4.60	4.51	4.51	7.28
Eastham	6.05	5.90	5.11	5.50	4.80
Easthamptom	15.15	10.29	9.52	9.92	11.86
East Longmeadow	8.89	6.70	6.10	6.41	7.47
Easton	10.86	7.94	6.72	7.34	8.62
Edgartown	6.85	6.74	6.18	6.46	5.62
Egremont	4.06	4.06	4.06	4.06	4.06
Erving	9.09	8.91	7.88	8.40	6.89
Essex	12.19	10.34	8.81	9.58	9.62
Everett	18.70	16.47	14.94	15.71	14.70
Fairhaven	17.01	10.39	10.10	10.26	13.13
Fall River	33.21	19.54	21.73	20.64	24.45
Falmouth	8.76	8.25	6.92	7.59	6.86
Fitchburg	23.09	16.47	16.62	16.55	18.16
Florida	7.73	7.46	5.70	6.59	5.14

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Foxborough	14.51	11.52	10.05	10.79	11.33
Framingham	16.20	14.13	13.36	13.75	13.49
Franklin	11.59	6.21	5.06	5.65	8.82
Freetown	8.37	6.07	4.51	5.19	6.46
Gardner	23.86	14.54	15.72	15.14	18.46
Gay Head	13.66	13.58	11.33	12.46	4.51
Georgetown	7.74	4.51	4.51	4.51	6.03
Gill	6.37	4.51	4.51	4.51	4.68
Gloucester	19.35	17.30	16.24	16.78	15.78
Goshen	5.25	4.51	4.51	4.51	4.51
Gosnold	8.77	8.54	4.51	6.47	4.51
Grafton	8.25	4.51	4.51	4.51	6.47
Granby	9.45	4.51	4.51	4.51	7.22
Granville	7.30	6.02	4.51	5.16	5.66
Great Barrington	11.11	8.26	6.64	7.46	8.61
Greenfield	20.24	16.79	15.63	16.22	15.98
Groton	8.35	5.80	4.68	5.25	6.72
Groveland	7.36	4.51	4.51	4.51	5.81
Hadley	9.63	6.42	5.57	6.01	7.77
Halifax	21.79	18.87	16.59	17.74	16.16
Hamilton	9.79	7.59	6.63	7.12	8.02
Hampden	6.89	4.51	4.51	4.51	5.45
Hancock	2.20	2.20	2.20	2.20	2.20
Hanover	12.37	9.83	8.35	9.10	9.72
Hanson	12.55	9.39	7.57	8.49	9.56
Hardwick	8.45	4.51	4.51	4.51	6.64
Harvard	10.04	8.93	9.37	9.15	9.50
Harwich	7.78	7.57	6.66	7.12	6.14
Hatfield	10.19	7.56	6.06	6.82	7.98
Haverhill	21.32	13.76	14.79	14.28	17.02
Hawley	0.47	0.47	0.47	0.47	0.47
Heath	7.57	6.96	5.25	6.11	5.67
Hingham	19.92	17.48	16.79	17.14	16.53
Hinsdale	1.67	1.67	1.67	1.67	1.67
Holbrook	16.39	11.55	10.39	10.98	12.59
Holden	10.14	7.08	6.54	6.82	8.36
Holland	6.97	6.07	4.51	5.03	5.11
Holliston	8.23	5.27	4.51	4.72	6.57
Holyoke	27.53	19.28	19.73	19.51	21.18
Hopedale	17.51	12.04	11.19	11.62	13.49
Hopkinton	12.03	9.63	8.42	9.03	9.65
Hubbardston	8.33	4.94	4.51	4.51	5.98
Hudson	18.77	12.92	12.26	12.60	14.48
Hull	26.73	23.31	22.34	22.83	21.34
Huntington	3.47	3.47	3.47	3.47	3.47
Ipswich	14.59	11.74	10.30	11.03	11.44
Kingston	16.25	13.69	11.59	12.65	12.23
Lakeville	9.42	7.30	5.63	6.47	7.34
Lancaster	10.06	5.81	5.06	5.44	7.99
Lanesborough	7.57	4.51	4.51	4.51	5.87
Lawrence	29.70	17.81	20.71	19.26	23.12
Lee	15.53	12.23	10.77	11.51	12.07

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as % of Inc Formula
Leicester	12.61	4.59	5.41	5.01	9.89
Lenox	8.47	6.59	5.32	5.96	6.82
Leominster	14.98	10.92	10.01	10.47	11.84
Leverett	6.49	4.51	4.51	4.51	4.98
Lexington	10.26	8.23	7.79	8.01	8.75
Leyden	9.47	7.70	4.55	6.14	6.49
Lincoln	11.18	10.43	10.34	10.39	10.25
Littleton	6.98	4.51	4.51	4.51	5.56
Longmeadow	12.82	11.00	10.97	10.99	11.33
Lowell	30.82	21.74	23.12	22.44	24.13
Ludlow	11.66	7.16	6.90	7.04	9.44
Lunenburg	12.01	7.40	6.33	6.87	9.31
Lynn	44.56	36.75	37.51	37.14	35.02
Lynnfield	9.86	7.80	7.27	7.54	8.35
Malden	28.23	23.03	22.44	22.74	22.14
Manchester	14.85	13.93	13.08	13.51	12.53
Mansfield	16.80	13.69	12.24	12.98	13.12
Marblehead	12.25	10.97	10.46	10.72	10.61
Marion	10.02	9.13	7.82	8.48	8.04
Marlborough	21.60	17.78	16.65	17.23	16.96
Marshfield	17.24	15.24	13.86	14.56	13.74
Mashpee	8.03	7.99	7.49	7.75	6.18
Mattapoisett	11.40	9.86	8.06	8.97	8.79
Maynard	19.62	16.15	14.93	15.55	15.43
Medfield	13.24	10.28	9.64	9.96	10.88
Medford	29.36	23.44	23.58	23.52	23.44
Medway	10.49	7.38	5.63	6.52	8.03
Melrose	23.64	19.25	19.20	19.24	19.39
Mendon	5.80	4.51	4.51	4.51	4.59
Merrimac	12.22	7.78	7.71	7.75	10.00
Methuen	15.44	11.15	10.21	10.69	12.13
Middleborough	19.19	15.17	14.09	14.64	15.05
Middlefield	3.98	3.98	3.98	3.98	3.98
Middleton	10.82	7.38	5.54	6.47	8.20
Milford	24.55	18.47	17.98	18.23	18.99
Millbury	19.21	11.87	12.07	11.98	14.91
Millis	15.91	13.01	11.76	12.40	12.62
Millville	11.02	4.51	4.51	4.51	7.82
Milton	20.09	17.66	17.48	17.58	17.24
Monroe	16.07	14.97	11.87	13.43	10.62
Monson	4.64	4.51	4.51	4.51	4.51
Montague	17.22	11.27	10.29	10.79	13.06
Monterey	6.77	6.36	4.88	5.63	5.07
Montgomery	3.02	3.02	3.02	3.02	3.02
Mount Washington	8.81	8.74	8.36	8.55	7.50
Nahant	18.15	15.53	14.97	15.25	15.12
Nantucket	8.79	8.61	7.50	8.06	6.52
Natick	17.25	14.83	13.94	14.39	14.13
Needham	14.89	13.38	12.81	13.10	12.75
New Ashford	1.35	1.35	1.35	1.35	1.35
New Bedford	29.08	20.02	20.02	20.03	21.65

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
New Braintree	12.01	6.56	6.16	6.37	9.45
Newbury	7.80	4.51	4.51	4.51	6.26
Newburyport	16.81	11.83	10.81	11.33	12.97
New Marlborough	3.45	3.45	3.45	3.45	3.45
New Salem	12.52	9.60	8.79	9.20	10.19
Newton	23.46	21.22	21.24	21.23	20.51
Norfolk	13.02	9.45	7.40	8.44	9.73
North Adams	27.89	17.48	18.62	18.06	21.09
Northampton	16.28	11.43	11.05	11.25	13.00
North Andover	13.07	11.05	10.12	10.59	10.76
North Attleborough	13.36	9.65	9.20	9.43	10.91
Northborough	10.30	6.93	5.54	6.24	8.03
Northbridge	14.49	4.51	5.07	4.51	10.99
North Brookfield	9.18	4.51	4.51	4.51	6.98
Northfield	8.31	6.54	5.28	5.92	6.70
North Reading	13.60	10.42	9.15	9.79	10.72
Norton	9.14	5.87	4.58	5.23	7.18
Norwell	13.01	11.24	10.04	10.64	10.55
Norwood	16.18	12.96	12.22	12.60	13.15
Oak Bluffs	13.43	13.26	12.16	12.71	9.92
Oakham	9.24	6.97	5.80	6.39	7.45
Orange	12.78	4.51	4.51	4.51	9.45
Orleans	8.99	8.83	8.14	8.49	7.33
Otis	4.56	4.51	4.51	4.51	4.51
Oxford	11.35	4.51	4.51	4.51	8.55
Palmer	13.46	6.84	6.71	6.78	10.46
Paxton	8.42	5.60	4.73	5.17	6.85
Peabody	18.80	15.27	14.41	14.85	15.08
Pelham	5.63	4.51	4.51	4.51	4.87
Pembroke	11.64	8.13	6.44	7.30	8.90
Pepperell	8.66	4.51	4.51	4.51	6.53
Peru	1.11	1.11	1.11	1.11	1.11
Petersham	7.03	4.51	4.51	4.51	5.52
Phillipston	5.10	4.51	4.51	4.51	4.51
Pittsfield	21.15	16.52	15.88	16.21	16.75
Plainfield	8.40	7.53	4.02	5.79	5.04
Plainville	11.43	7.92	5.88	6.92	8.55
Plymouth	13.31	12.66	11.16	11.91	10.30
Plympton	14.48	13.30	11.78	12.55	11.43
Princeton	9.11	6.14	4.92	5.54	7.23
Provincetown	16.06	15.71	14.34	15.03	12.13
Quincy	28.54	24.18	23.52	23.86	22.72
Randolph	22.00	17.79	16.72	17.27	17.19
Raynham	8.39	5.20	4.51	4.69	6.70
Reading	14.93	12.22	11.45	11.84	12.25
Rehoboth	5.66	4.51	4.51	4.51	4.51
Revere	30.26	24.83	24.40	24.62	23.80
Richmond	4.09	4.09	4.09	4.09	4.09
Rochester	5.82	4.51	4.51	4.51	4.56
Rockland	15.31	9.33	7.89	8.62	11.37
Rockport	10.37	9.56	8.40	8.99	8.44

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Rowe	4.24	4.24	4.24	4.24	4.24
Rowley	7.86	4.78	4.51	4.51	6.02
Royalston	9.60	6.22	4.51	5.34	7.31
Russell	5.99	4.51	4.51	4.51	4.61
Rutland	9.72	5.55	4.84	5.20	7.75
Salem	25.53	22.67	21.35	22.02	20.16
Salisbury	10.42	9.15	6.68	7.93	7.49
Sandisfield	2.77	2.77	2.77	2.77	2.77
Sandwich	11.26	11.13	10.51	10.82	9.29
Saugus	15.93	13.26	12.03	12.65	12.70
Savoy	4.29	4.29	4.29	4.29	4.29
Scituate	21.88	19.24	18.16	18.71	17.63
Seekonk	8.77	6.63	5.33	5.99	7.02
Sharon	16.63	14.16	13.48	13.83	13.80
Sheffield	4.28	4.28	4.28	4.28	4.28
Shelburne	5.57	4.51	4.51	4.51	4.51
Sherborn	8.68	7.94	7.12	7.53	7.34
Shirley	21.77	16.63	17.40	17.02	18.21
Shrewsbury	12.42	9.34	8.62	8.99	10.14
Shutesbury	11.03	10.46	9.53	10.00	9.18
Somerset	8.73	8.13	6.73	7.44	6.81
Somerville	39.72	27.63	30.58	29.11	30.85
Southampton	7.05	4.51	4.51	4.51	5.54
Southborough	12.22	10.58	9.57	10.08	10.07
Southbridge	17.10	10.23	10.68	10.46	13.54
South Hadley	11.08	5.96	5.88	5.92	8.91
Southwick	7.38	4.95	4.51	4.51	5.72
Spencer	15.20	7.94	7.53	7.75	11.53
Springfield	28.84	17.34	19.19	18.27	21.87
Sterling	10.10	7.33	5.84	6.60	7.90
Stockbridge	9.21	8.32	7.22	7.78	7.55
Stoneham	18.18	15.01	14.26	14.64	14.78
Stoughton	14.71	11.02	9.65	10.35	11.42
Stow	10.71	8.49	7.41	7.96	8.69
Sturbridge	11.81	10.16	8.93	9.55	9.56
Sudbury	11.78	10.29	9.41	9.86	9.84
Sunderland	9.04	5.63	4.57	5.11	7.18
Sutton	7.69	4.51	4.51	4.51	6.06
Swampscott	19.05	17.10	16.82	16.96	16.47
Swansea	10.96	7.96	6.29	7.14	8.45
Taunton	22.77	15.75	15.62	15.70	17.55
Templeton	10.91	4.51	4.51	4.51	7.88
Tewksbury	13.87	10.05	8.03	9.05	10.35
Tisbury	8.74	8.48	7.46	7.97	6.87
Tolland	6.76	6.58	5.33	5.96	4.83
Topsfield	8.80	7.01	6.12	6.57	7.31
Townsend	9.78	5.69	5.16	5.43	7.88
Truro	5.91	5.86	5.48	5.67	4.95
Tyngsborough	12.24	8.59	6.32	7.47	9.02
Tyringham	4.39	4.39	4.39	4.39	4.39
Upton	13.40	6.60	5.99	6.30	10.17
Uxbridge	13.43	7.19	6.15	6.68	10.11

City or Town	Present Nonschool Tax Rate	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
akefield	20.25	17.20	16.58	16.90	16.63
ales	6.82	4.51	4.51	4.51	4.81
alpole	14.53	11.83	10.81	11.33	11.74
altham	18.18	15.86	14.79	15.33	14.75
are	15.36	6.55	7.80	7.19	12.04
areham	14.54	13.64	11.64	12.65	10.77
arren	11.06	4.51	4.51	4.51	8.30
arwick	10.41	6.71	4.51	5.46	7.54
ashington	4.05	4.05	4.05	4.05	4.05
atertown	31.25	26.84	26.60	26.73	25.37
ayland	14.49	12.80	12.30	12.56	12.42
ebster	14.48	4.65	6.16	5.41	11.22
ellesley	14.98	13.69	13.48	13.59	13.30
ellfleet	5.49	5.38	4.80	5.09	4.51
endell	10.20	6.62	4.51	4.51	5.94
enham	10.61	9.25	8.87	9.06	9.26
estborough	12.04	9.81	8.19	9.00	9.41
est Bolyston	10.71	8.07	7.28	7.68	8.79
est Bridgewater	14.34	11.22	9.91	10.57	11.29
est Brookfield	6.91	4.51	4.51	4.51	5.36
estfield	16.76	13.07	11.91	12.50	13.17
estford	15.92	12.78	11.12	11.96	12.26
esthampton	8.49	6.79	5.09	5.95	6.61
estminster	8.18	5.64	4.51	4.85	6.38
est Newbury	6.25	4.51	4.51	4.51	4.91
eston	13.10	12.45	12.24	12.35	11.91
estport	10.90	9.25	7.06	8.16	8.13
est Springfield	13.63	10.98	9.80	10.40	10.91
est Stockbridge	2.49	2.49	2.49	2.49	2.49
est Tisbury	6.41	6.20	5.29	5.75	5.06
estwood	16.22	14.90	14.26	14.58	13.87
eymouth	22.44	18.67	17.63	18.16	17.72
hately	5.24	4.51	4.51	4.51	4.51
hitman	13.75	8.27	7.55	7.92	10.66
ilbraham	10.26	7.51	6.77	7.15	8.42
illiamsburg	7.69	4.51	4.51	4.51	5.99
illiamstown	10.14	7.37	6.95	7.17	8.49
ilmington	12.22	10.13	8.17	9.16	9.31
inchendon	20.69	11.28	12.24	11.77	15.85
inchester	17.86	15.73	15.52	15.63	15.43
indsor	11.34	9.77	7.78	8.78	8.60
inthrop	23.02	17.75	17.87	17.81	18.64
oburn	21.01	18.36	17.23	17.81	16.87
orcester	37.45	27.26	29.77	28.52	29.79
orthington	3.50	3.50	3.50	3.50	3.50
rentham	12.87	8.20	6.32	7.27	9.56
armouth	8.89	8.52	7.25	7.89	6.85

Appendix 8-1A

Non-School Tax Rates:
Present Versus Alternative Distribution Formulas

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Other Costs + $100 M Distributed by the Combination Formula
Abington	14.12	10.13	10.25	8.82	10.52
Acton	11.61	10.00	9.81	8.75	8.91
Acushnet	8.96	6.07	5.53	4.51	6.09
Adams	22.81	15.09	15.34	15.11	16.96
Agawam	12.69	9.72	9.00	8.31	8.72
Alford	6.17	5.47	4.76	4.76	4.49
Amesbury	17.93	13.26	10.11	12.48	13.76
Amherst	9.94	8.48	6.08	6.85	6.07
Andover	12.97	11.08	10.73	9.81	10.03
Arlington	23.10	19.24	19.87	18.41	18.22
Ashburnham	10.14	7.41	5.58	5.89	6.73
Ashby	5.83	4.51	4.51	4.51	3.39
Ashfield	4.52	4.51	4.51	4.51	2.21
Ashland	13.24	10.49	10.19	9.29	9.97
Athol	19.17	11.40	13.52	11.02	12.88
Attleboro	21.42	16.77	18.18	16.05	17.15
Auburn	12.49	9.38	9.57	7.93	8.15
Avon	13.28	10.51	9.97	9.43	10.57
Ayer	26.67	23.41	20.86	23.05	23.29
Barnstable	5.34	4.69	4.51	4.51	4.02
Barre	12.71	6.59	9.25	5.39	7.32
Becket	3.31	3.31	3.31	3.31	1.86
Bedford	13.91	11.77	10.74	10.54	10.26
Belchertown	11.32	7.02	6.69	5.76	7.18
Bellingham	17.83	12.66	12.87	11.95	13.60
Belmont	19.04	16.78	17.31	15.63	14.94
Berkley	8.73	5.45	4.95	4.51	5.57
Berlin	11.15	7.88	8.04	6.30	7.35
Bernardston	8.62	5.74	4.51	4.51	4.54
Beverly	21.83	18.09	17.70	17.45	18.24
Billerica	15.49	11.46	10.73	10.59	11.96
Blackstone	12.53	7.08	6.88	5.75	7.21
Blandford	7.54	5.86	6.41	4.51	4.86
Bolton	8.89	7.23	7.26	5.96	5.72
Boston	105.60	83.68	88.78	94.60	86.40
Bourne	11.35	9.99	7.77	9.44	9.29
Boxborough	10.55	9.05	9.25	8.33	8.42
Boxford	11.35	9.85	10.45	8.48	9.01
Boylston	10.40	7.62	8.20	5.92	6.45
Braintree	15.28	12.74	11.77	11.83	12.30
Brewster	11.69	10.25	10.91	10.70	9.38
Bridgewater	12.80	8.85	8.30	7.54	9.31

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Ot Costs + $10 Distributed by the Combination Formula
Brimfield	6.68	4.51	4.51	4.51	4.35
Brockton	27.45	22.24	20.33	22.16	23.39
Brookfield	8.56	5.17	5.08	4.51	4.55
Brookline	33.46	30.74	31.40	30.03	29.93
Buckland	7.11	4.51	4.51	4.51	4.51
Burlington	17.21	14.44	12.89	14.17	13.65
Cambridge	48.17	42.57	41.22	43.46	43.07
Canton	15.89	13.53	13.21	12.68	12.62
Carlisle	8.80	7.61	8.05	6.21	6.34
Carver	9.81	7.93	7.68	7.27	7.15
Charlemont	1.89	1.89	1.89	1.89	0.00
Charlton	7.64	5.02	4.86	4.51	4.58
Chatham	6.96	6.08	5.92	5.88	5.16
Chelmsford	9.62	6.98	7.71	5.07	5.74
Chelsea	78.55	60.04	62.16	67.89	69.67
Cheshire	4.14	4.14	4.14	4.14	1.83
Chester	4.27	4.27	4.27	4.27	2.35
Chesterfield	6.23	4.62	4.51	4.51	3.58
Chicopee	21.80	14.97	16.17	14.69	16.37
Chilmark	6.74	5.51	5.75	6.11	4.50
Clarksburg	5.71	4.51	4.51	4.51	3.19
Clinton	17.66	12.91	12.04	11.92	13.37
Cohasset	13.31	11.58	11.84	10.33	10.36
Colrain	1.79	1.79	1.79	1.79	4.51
Concord	11.75	10.27	10.69	8.93	8.65
Conway	5.65	4.51	4.51	4.51	3.50
Cummington	7.47	5.98	5.16	4.73	4.51
Dalton	13.82	9.58	10.61	8.12	9.64
Danvers	14.37	11.60	10.46	10.50	11.13
Dartmouth	10.16	8.15	6.98	6.80	6.93
Dedham	14.49	12.05	12.08	10.94	10.95
Deerfield	6.32	4.51	4.51	4.51	4.30
Dennis	6.41	5.62	5.37	5.45	4.60
Dighton	11.94	8.86	8.82	7.35	8.48
Douglas	9.40	6.37	6.47	4.65	6.09
Dover	11.09	10.16	10.63	8.96	8.56
Dracut	12.48	6.64	7.67	5.33	7.56
Dudley	6.15	4.51	4.51	4.51	3.56
Dunstable	4.95	4.51	4.51	4.51	3.64
Duxbury	16.74	14.78	14.76	14.26	13.72
East Bridgewater	13.41	10.13	8.83	8.91	9.70
East Brookfield	9.18	5.95	6.59	4.51	5.39
Eastham	6.05	5.35	5.21	5.11	4.51
Easthampton	15.15	11.09	11.47	9.84	10.48
East Longmeadow	8.89	7.09	6.07	5.32	5.79
Easton	10.86	8.29	7.02	6.74	7.88

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Other Costs + $100 M Distributed by the Combination Formula
Edgartown	6.85	6.18	6.16	6.08	4.72
Egremont	4.06	4.06	4.06	4.06	2.32
Erving	9.09	7.90	8.74	8.07	7.41
Essex	12.19	9.98	8.50	8.92	9.14
Everett	18.70	15.59	13.51	15.10	14.11
Fairhaven	17.01	11.78	11.49	10.81	12.37
Fall River	33.21	22.04	22.14	24.30	26.42
Falmouth	8.76	7.55	6.50	7.03	6.77
Fitchburg	23.09	17.33	15.21	16.89	17.30
Florida	7.73	6.30	5.91	6.49	6.60
Foxborough	14.51	11.43	10.35	10.34	11.66
Framingham	16.20	13.81	13.61	12.73	12.86
Franklin	11.59	7.53	6.89	6.00	7.96
Freetown	8.37	6.27	5.86	4.72	5.59
Gardner	23.86	16.53	17.12	16.51	17.53
Gay Head	13.66	8.83	12.53	12.98	9.97
Georgetown	7.74	5.26	4.54	4.51	4.93
Gill	6.37	4.51	4.51	4.51	4.12
Gloucester	19.35	16.55	15.20	15.90	16.32
Goshen	5.25	4.51	4.51	4.51	3.04
Gosnold	8.77	5.26	8.08	7.60	4.73
Grafton	8.25	4.57	5.32	4.51	4.51
Granby	9.45	5.83	6.21	4.51	5.30
Granville	7.30	5.84	5.13	4.57	4.51
Great Barrington	11.11	8.44	9.03	7.04	7.66
Greenfield	20.24	16.39	15.37	15.76	15.67
Groton	8.35	6.27	5.60	4.51	5.48
Groveland	7.36	4.51	4.51	4.51	4.51
Hadley	9.63	7.11	7.26	5.31	5.16
Halifax	21.79	17.52	15.92	17.67	17.39
Hamilton	9.79	7.81	8.24	6.22	6.97
Hampden	6.89	4.51	4.51	4.51	4.00
Hancock	2.20	2.20	2.20	2.20	0.97
Hanover	12.37	9.78	9.24	8.53	9.38
Hanson	12.55	9.49	8.59	8.27	9.04
Hardwick	8.45	4.51	4.75	4.51	4.51
Harvard	10.04	9.22	7.18	7.50	7.61
Harwich	7.78	6.86	6.23	6.69	6.03
Hatfield	10.19	7.78	7.95	6.28	6.54
Haverhill	21.32	15.41	15.87	14.69	16.65
Hawley	0.47	0.47	0.47	0.47	0.00
Heath	7.57	6.31	4.97	5.68	5.28
Hingham	19.92	17.01	17.26	16.16	15.86
Hinsdale	1.67	1.67	1.67	1.67	0.37
Holbrook	16.39	12.08	11.71	11.09	12.83
Holden	10.14	7.73	8.25	5.93	6.57
Holland	6.97	5.59	4.89	4.68	4.56

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Ot Costs + $10(Distributed by the Combination Formula
Holliston	8.23	5.93	5.92	4.51	4.51
Holyoke	27.53	20.26	20.08	20.61	21.53
Hopedale	17.51	12.78	12.03	11.87	12.08
Hopkinton	12.03	9.65	9.27	8.30	8.74
Hubbardston	8.33	5.47	5.80	4.51	4.87
Hudson	18.77	13.72	12.82	12.94	14.22
Hull	26.73	22.33	19.37	22.27	22.33
Huntington	3.47	3.47	3.47	3.47	1.36
Ipswich	14.59	11.60	10.67	10.52	11.41
Kingston	16.25	12.97	12.56	12.40	13.37
Lakeville	9.42	7.32	7.35	5.91	6.72
Lancaster	10.06	6.91	6.77	5.09	6.38
Lanesborough	7.57	4.61	5.51	4.51	4.51
Lawrence	29.70	20.50	21.22	21.39	23.46
Lee	15.53	12.16	11.80	11.16	11.51
Leicester	12.61	7.26	8.18	5.78	7.28
Lenox	8.47	6.71	6.42	5.16	5.99
Leominster	14.98	11.39	11.36	10.13	11.04
Leverett	6.49	4.75	4.81	4.51	4.51
Lexington	10.26	8.50	8.65	6.83	7.22
Leyden	9.47	7.10	6.47	6.27	6.75
Lincoln	11.18	10.35	10.24	9.10	8.86
Littleton	6.98	5.04	4.81	4.51	4.51
Longmeadow	12.82	11.17	11.72	9.57	8.76
Lowell	30.82	22.96	22.41	23.56	25.10
Ludlow	11.66	8.31	7.43	6.55	7.95
Lunenburg	12.01	8.37	9.02	6.84	7.53
Lynn	44.56	35.90	35.80	37.82	37.54
Lynnfield	9.86	8.08	8.49	6.40	6.83
Malden	28.23	22.60	21.57	22.73	23.51
Manchester	14.85	13.23	12.56	12.53	12.24
Mansfield	16.80	13.41	11.40	12.55	13.72
Marblehead	12.25	10.79	10.78	9.52	9.81
Marion	10.02	8.58	8.17	7.74	7.55
Marlborough	21.60	17.38	16.55	16.89	17.89
Marshfield	17.24	14.49	13.37	13.83	14.30
Mashpee	8.03	7.09	7.26	7.55	6.22
Mattapoisett	11.40	9.33	9.24	8.41	8.67
Maynard	19.62	15.80	15.59	15.13	15.80
Medfield	13.24	10.59	10.75	9.09	10.50
Medford	29.36	23.46	23.15	23.50	23.86
Medway	10.49	7.72	6.94	6.24	7.74
Melrose	23.64	19.33	20.15	18.59	18.07
Mendon	5.80	4.51	4.51	4.51	3.92
Merrimac	12.22	8.90	7.43	7.14	9.02

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Other Costs + $100 M Distributed by the Combination Formula
Methuen	15.44	11.65	11.39	10.45	12.23
Middleborough	19.19	15.12	14.12	14.36	15.43
Middlefield	3.98	3.98	3.98	3.98	1.90
Middleton	10.82	7.80	5.36	6.35	7.80
Milford	24.55	18.75	19.10	18.61	19.51
Millbury	19.21	13.41	13.96	12.69	14.18
Millis	15.91	12.82	13.01	11.81	12.63
Millville	11.02	4.51	4.51	4.51	5.12
Milton	20.09	17.46	18.20	16.33	16.20
Monroe	16.07	12.79	12.55	13.54	12.80
Monson	4.64	4.51	4.51	4.51	1.93
Montague	17.22	12.19	12.44	11.34	12.37
Monterey	6.77	5.72	5.41	5.23	4.51
Montgomery	3.02	3.02	3.02	3.02	1.14
Mount Washington	8.81	8.12	7.63	8.19	7.24
Nahant	18.15	15.33	14.34	14.25	14.55
Nantucket	8.79	7.56	7.43	7.76	8.09
Natick	17.25	14.49	14.14	13.51	13.45
Needham	14.89	13.07	13.33	11.93	11.79
New Ashford	1.35	1.35	1.35	1.35	0.00
New Bedford	29.08	20.86	20.05	21.82	23.48
New Braintree	12.01	8.03	7.35	6.39	8.02
Newbury	7.80	5.20	5.10	4.51	5.16
Newburyport	16.81	12.41	12.45	11.43	12.83
New Marlborough	3.45	3.45	3.45	3.45	1.76
New Salem	12.52	9.91	9.08	8.40	9.78
Newton	23.46	20.87	21.70	19.85	19.73
Norfolk	13.02	9.60	8.17	8.47	9.98
North Adams	27.89	19.32	18.46	20.12	21.71
Northampton	16.28	12.23	10.64	10.97	11.34
North Andover	13.07	10.91	10.09	9.65	10.39
North Attleborough	13.36	10.29	8.88	8.72	10.03
Northborough	10.30	7.49	6.68	5.88	6.84
Northbridge	14.49	7.30	8.78	6.51	8.13
North Brookfield	9.18	4.51	4.93	4.51	4.51
Northfield	8.31	6.63	6.58	5.11	4.80
North Reading	13.60	10.58	9.67	9.30	10.11
Norton	9.14	6.54	4.51	4.78	6.08
Norwell	13.01	10.89	10.50	9.80	10.17
Norwood	16.18	13.06	12.53	11.85	13.22
Oak Bluffs	13.43	11.59	11.63	12.43	10.33
Oakham	9.24	7.22	7.84	5.61	6.84
Orange	12.78	4.51	7.79	4.51	5.67
Orleans	8.99	8.08	8.17	8.05	7.25
Otis	4.56	4.51	4.51	4.51	3.12
Oxford	11.35	6.08	7.18	4.63	6.84

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Other Costs + $10 Distributed by the Combination Formula
Palmer	13.46	8.67	9.13	7.26	8.39
Paxton	8.42	6.23	6.49	4.51	4.76
Peabody	18.80	15.18	15.41	14.27	15.12
Pelham	5.63	4.51	5.03	4.51	2.70
Pembroke	11.64	8.53	8.60	7.13	8.56
Pepperell	8.66	5.40	5.03	4.51	5.02
Peru	1.11	1.11	1.11	1.11	0.17
Petersham	7.03	4.94	4.63	4.51	4.51
Phillipston	5.10	4.51	4.51	4.51	3.30
Pittsfield	21.15	16.65	16.82	15.97	16.89
Plainfield	4.40	6.29	5.63	6.16	5.45
Plainville	11.43	8.25	8.67	6.92	8.61
Plymouth	13.31	11.48	10.63	11.36	10.93
Plympton	14.48	12.37	12.98	11.86	11.75
Princeton	9.11	6.69	7.12	4.95	5.47
Provincetown	16.06	13.92	13.80	14.62	12.91
Quincy	28.54	23.46	24.17	23.51	24.26
Randolph	22.00	17.50	17.78	17.05	18.67
Raynham	8.39	5.96	6.40	4.51	5.07
Reading	14.93	12.24	12.66	10.96	11.53
Rehoboth	5.66	4.51	4.51	4.51	4.07
Revere	30.26	24.33	26.43	24.64	26.94
Richmond	4.09	4.09	4.09	4.09	2.98
Rochester	5.82	4.51	4.51	4.51	4.01
Rockland	15.31	10.37	8.14	9.42	11.06
Rockport	10.37	9.00	8.52	8.20	8.06
Rowe	4.24	4.24	4.24	4.24	3.32
Rowley	7.86	5.41	4.51	4.51	4.74
Royalston	9.60	6.78	6.43	5.17	6.49
Russell	5.99	4.51	4.51	4.51	3.49
Rutland	9.72	6.66	7.34	4.80	6.09
Salem	25.53	21.42	20.38	21.46	21.85
Salisbury	10.42	8.32	6.50	7.71	7.15
Sandisfield	2.77	2.77	2.77	2.77	1.05
Sandwich	11.26	10.21	9.77	10.38	9.28
Saugus	15.93	12.98	12.16	11.99	11.84
Savoy	4.29	4.29	4.29	4.29	3.02
Scituate	21.88	18.44	18.07	17.97	18.27
Seekonk	8.77	6.83	6.40	5.24	6.20
Sharon	16.63	13.99	14.67	12.85	13.44
Sheffield	4.28	4.28	4.28	4.28	2.63
Shelburne	5.57	4.51	4.51	4.51	3.04
Sherborn	8.68	7.64	7.46	6.61	6.21
Shirley	21.77	17.44	16.38	16.31	17.52
Shrewsbury	12.42	9.75	10.11	8.19	8.94
Shutesbury	11.03	9.82	9.04	9.20	8.27

City or Town	Present Nonschool Tax Rate	Combination: Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover of County + Other Costs + $100M Distributed by the Combination Formula
Somerset	8.73	7.47	6.64	6.87	6.63
Somerville	39.72	29.28	29.30	31.34	32.10
Southampton	7.05	4.99	5.05	4.51	4.51
Southborough	12.22	10.33	10.44	9.13	9.33
Southbridge	17.10	11.91	12.19	10.78	12.27
South Hadley	11.08	7.45	7.40	5.63	6.50
Southwick	7.38	5.35	4.51	4.51	4.51
Spencer	15.20	9.76	10.74	8.71	10.15
Springfield	28.84	19.64	20.42	20.67	22.06
Sterling	10.10	7.63	7.05	6.09	6.45
Stockbridge	9.21	7.94	7.83	6.94	6.94
Stoneham	18.18	14.91	14.65	13.89	13.96
Stoughton	14.71	11.23	10.89	10.09	11.41
Stow	10.71	8.60	8.33	7.12	7.64
Sturbridge	11.81	9.86	9.68	8.71	8.79
Sudbury	11.78	10.07	10.32	8.84	8.47
Sunderland	9.04	6.41	5.68	4.59	5.43
Sutton	7.69	5.26	4.94	4.51	4.97
Swampscott	19.05	16.79	17.10	15.68	16.00
Swansea	10.96	8.22	7.62	6.79	7.77
Taunton	22.77	16.67	16.06	16.38	18.25
Templeton	10.91	4.51	5.89	4.51	5.62
Tewksbury	13.87	10.21	9.35	9.16	10.30
Tisbury	8.74	7.68	7.31	7.52	5.85
Tolland	6.76	5.70	4.80	5.73	4.51
Topsfield	8.80	7.16	6.85	5.57	6.45
Townsend	9.78	6.80	7.41	4.91	5.97
Truro	5.91	5.40	5.05	5.37	4.15
Tyngsborough	12.24	8.82	7.31	7.64	8.29
Tyringham	4.39	4.39	4.39	4.39	2.57
Upton	13.40	8.40	9.83	7.12	8.95
Uxbridge	13.43	8.67	8.84	7.41	9.09
Wakefield	20.25	16.93	16.51	16.04	15.61
Wales	6.82	4.66	4.51	4.51	4.51
Walpole	14.53	11.79	11.57	10.57	11.56
Waltham	18.18	15.31	14.23	14.51	13.48
Ware	15.36	9.32	10.35	8.21	9.01
Wareham	14.54	12.20	11.12	12.26	11.48
Warren	11.06	6.42	7.65	4.89	6.51
Warwick	10.41	7.14	7.66	5.77	6.40
Washington	4.05	4.05	4.05	4.05	2.95
Watertown	31.25	26.12	25.82	26.19	25.83
Wayland	14.49	12.60	13.19	11.36	11.45
Webster	14.48	7.97	8.86	6.93	8.38
Wellesley	14.98	13.50	13.93	12.24	12.03
Wellfleet	5.49	4.95	4.61	4.70	3.73
Wendell	10.20	6.29	6.93	5.64	6.71
Wenham	10.61	9.26	9.32	7.80	7.92
Westborough	12.04	9.61	9.35	8.44	8.29

City or Town	Present Nonschool Tax Rate	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Revenue Sharing Formula	Straight Per Capita Formula	State Takeover c County + C Costs + $1 Distribute by the Combinatic Formula
West Boylston	10.71	8.44	8.97	6.80	7.57
West Bridgewater	14.34	11.26	11.61	10.08	11.04
West Brookfield	6.91	4.66	4.70	4.51	4.47
Westfield	16.76	13.13	13.43	12.13	13.15
Westford	15.92	12.53	11.78	11.65	12.46
Westhampton	8.49	6.71	6.75	5.35	5.11
Westminster	8.18	6.02	5.59	4.51	5.28
West Newbury	6.25	4.51	4.51	4.51	4.51
Weston	13.10	12.18	12.53	11.16	9.40
Westport	10.90	8.69	7.58	7.80	8.50
West Springfield	13.63	10.95	9.43	9.71	9.34
West Stockbridge	2.49	2.49	2.49	2.49	0.75
West Tisbury	6.41	5.63	5.97	5.32	4.42
Westwood	16.22	14.39	14.84	13.45	13.34
Weymouth	22.44	18.20	17.90	17.76	18.28
Whately	5.24	4.51	4.51	4.51	3.52
Whitman	13.75	9.48	7.75	8.11	9.33
Wilbraham	10.26	7.98	8.41	6.26	6.85
Williamsburg	7.69	4.51	4.51	4.51	4.51
Williamstown	10.14	7.94	8.03	6.13	6.33
Wilmington	12.22	9.73	8.03	8.74	8.96
Winchendon	20.69	13.60	14.77	13.30	14.42
Winchester	17.86	15.58	15.91	14.34	13.74
Windsor	11.34	9.19	9.94	8.32	8.25
Winthrop	23.02	18.21	19.17	17.49	20.19
Woburn	21.01	17.62	16.23	17.09	17.40
Worcester	37.45	28.56	28.14	29.76	31.01
Worthington	3.50	3.50	3.50	3.50	1.58
Wrentham	12.87	8.89	7.14	7.66	9.66
Yarmouth	8.89	7.68	7.16	7.42	7.11

State Aid Per Capita:
Alternative Distribution Formulas

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Abington	41.91	50.49	46.12	27.54
Acton	22.63	35.47	28.98	29.47
Acushnet	35.20	45.98	45.98	24.77
Adams	60.92	52.05	56.44	31.56
Agawam	34.73	46.91	40.73	27.77
Alford	11.15	38.13	24.53	34.13
Amesbury	43.13	53.28	48.11	35.86
Amherst	24.47	28.97	26.68	19.07
Andover	24.97	35.77	30.30	30.09
Arlington	37.08	38.42	37.70	38.77
Ashburnham	33.62	52.58	42.99	25.68
Ashby	11.56	11.56	11.56	11.56
Ashfield	0.14	0.14	0.14	0.14
Ashland	31.26	47.91	39.48	32.85
Athol	64.43	49.14	56.76	23.67
Attleboro	42.50	45.62	43.99	37.23
Auburn	36.08	48.13	42.02	26.99
Avon	30.49	50.45	40.36	35.59
Ayer	28.59	35.91	32.18	54.24
Barnstable	8.94	33.70	26.98	33.70
Barre	51.46	51.46	51.46	19.24
Becket	0.00	0.00	0.00	0.00
Bedford	26.65	37.59	32.05	31.77
Belchertown	44.01	56.24	54.60	27.26
Bellingham	46.48	55.84	51.07	34.68
Belmont	26.94	29.75	28.30	34.05
Berkley	38.04	38.04	38.04	19.11
Berlin	38.37	50.49	44.33	23.75
Bernardston	35.29	22.69	32.53	7.48
Beverly	34.66	43.02	38.77	43.87
Billerica	38.83	57.08	47.84	36.89
Blackstone	53.64	54.38	53.95	20.58
Blandford	24.94	44.14	37.00	24.14
Bolton	23.18	46.67	34.81	28.97
Boston	87.04	49.16	68.12	96.60
Bourne	15.11	41.66	28.27	50.69
Boxborough	17.58	46.08	31.71	44.80
Boxford	22.65	31.29	26.91	25.38
Boylston	35.45	45.83	40.56	21.77
Braintree	27.31	44.69	35.90	40.51
Brewster	7.81	51.74	29.61	125.43
Bridgewater	41.59	55.47	48.43	27.64
Brimfield	20.01	20.01	20.01	14.55

APPENDIX 8-1B (continued)

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Brockton	41.85	45.99	43.85	48.86
Brookfield	35.27	35.27	35.27	17.57
Brookline	27.12	22.94	25.01	45.83
Buckland	25.76	25.76	25.76	15.90
Burlington	24.08	51.46	37.64	59.57
Cambridge	37.28	34.47	35.83	72.13
Canton	25.36	41.76	33.47	42.38
Carlisle	20.48	31.30	25.82	21.78
Carver	20.08	60.67	40.20	48.00
Charlemont	0.00	0.00	0.00	0.00
Charlton	32.47	32.47	32.47	19.56
Chatham	8.51	49.75	28.97	65.83
Chelmsford	36.05	40.34	38.13	17.44
Chelsea	84.34	50.23	67.29	75.76
Cheshire	0.00	0.00	0.00	0.00
Chester	0.00	0.00	0.00	0.00
Chesterfield	22.72	27.58	27.58	27.58
Chicopee	56.25	51.58	53.86	32.37
Chilmark	4.93	79.26	41.82	164.29
Clarksburg	7.67	7.67	7.67	7.67
Clinton	45.39	49.12	47.18	30.94
Cohasset	23.62	32.68	28.08	29.83
Colrain	0.00	0.00	0.00	0.00
Concord	22.30	30.41	26.30	25.93
Conway	14.13	14.13	14.13	14.13
Cummington	21.67	49.71	36.20	28.49
Dalton	45.10	47.50	46.23	23.57
Danvers	30.57	46.48	38.43	35.38
Dartmouth	26.61	46.12	36.26	28.52
Dedham	28.12	41.99	34.97	35.04
Deerfield	21.45	21.45	21.45	15.61
Dennis	7.64	50.02	28.67	68.00
Dighton	36.30	47.90	42.02	25.51
Douglas	37.57	47.33	45.02	21.35
Dover	16.83	21.69	19.22	23.13
Dracut	51.22	51.22	51.22	18.90
Dudley	13.91	13.91	13.91	11.08
Dunstable	8.97	8.97	8.97	8.97
Duxbury	19.61	38.46	28.94	53.17
East Bridgewater	35.61	51.75	43.58	31.57
East Brookfield	40.82	41.60	41.60	16.95
Eastham	7.41	46.13	26.62	60.96
Easthampton	42.03	48.70	45.28	28.44
East Longmeadow	28.25	35.90	32.01	18.30
Easton	32.55	46.22	39.29	24.96
Edgartown	6.07	40.11	22.96	73.28
Egremont	0.00	0.00	0.00	0.00
Erving	8.09	54.45	31.09	99.07
Essex	25.94	47.46	36.59	36.13
Everett	28.48	48.07	38.17	51.12

APPENDIX 8-1B (continued)

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Fairhaven	49.06	51.21	50.07	28.76
Fall River	70.48	59.21	64.80	45.18
Falmouth	13.70	48.81	31.11	50.58
Fitchburg	49.07	47.94	48.45	36.54
Florida	9.79	75.32	42.31	96.31
Foxborough	32.97	49.14	40.96	35.01
Framingham	27.43	37.55	32.42	35.90
Franklin	44.21	53.64	48.84	22.77
Freetown	28.90	48.57	39.99	24.07
Gardner	58.21	50.88	54.50	33.78
Gay Head	5.38	157.06	80.68	618.22
Georgetown	34.06	34.06	34.06	18.05
Gill	23.22	23.22	23.22	21.07
Gloucester	27.28	41.42	34.26	47.58
Goshen	14.84	14.84	14.84	14.84
Gosnold	9.21	168.10	90.77	168.10
Grafton	30.12	30.12	30.12	14.38
Granby	41.96	41.96	41.96	18.94
Granville	21.65	46.93	35.99	27.64
Great Barrington	32.15	50.53	41.23	28.27
Greenfield	35.42	47.30	41.27	43.77
Groton	30.45	43.77	37.02	19.43
Groveland	22.48	22.48	22.48	12.27
Hadley	34.13	43.21	38.59	19.74
Halifax	32.57	58.04	45.17	62.88
Hamilton	28.30	40.67	34.40	22.79
Hampden	24.54	24.54	24.54	14.87
Hancock	0.00	0.00	0.00	0.00
Hanover	30.39	48.11	39.15	31.71
Hanson	33.86	53.47	43.55	32.09
Hardwick	29.72	29.72	29.72	13.68
Harvard	20.06	12.06	16.06	9.77
Harwich	8.63	47.13	27.73	68.76
Hatfield	30.94	48.59	39.66	25.92
Haverhill	52.43	45.27	48.81	29.81
Hawley	0.00	0.00	0.00	0.00
Heath	14.96	56.42	35.53	46.25
Hingham	29.78	38.19	33.92	41.37
Hinsdale	0.00	0.00	0.00	0.00
Holbrook	41.96	52.03	46.91	32.92
Holden	33.33	39.30	36.25	19.36
Holland	18.13	49.33	38.84	37.30
Holliston	32.79	41.25	38.89	18.36
Holyoke	54.78	51.75	53.21	42.12
Hopedale	44.58	51.55	47.98	32.79
Hopkinton	29.53	44.50	36.92	29.36
Hubbardston	35.09	39.56	39.56	24.35
Hudson	46.10	51.32	48.63	33.83
Hull	35.26	45.24	40.17	55.54
Huntington	0.00	0.00	0.00	0.00

APPENDIX 8-1B (continued)

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Ipswich	32.21	48.45	40.23	35.54
Kingston	30.51	55.59	42.92	47.96
Lakeville	27.79	49.68	38.62	27.29
Lancaster	39.32	46.18	42.68	19.13
Lanesborough	28.29	28.29	28.29	15.66
Lawrence	65.75	49.72	57.71	36.37
Lee	34.64	50.01	42.23	36.32
Leicester	54.01	48.46	51.18	18.32
Lenox	26.17	43.78	34.88	22.95
Leominster	38.42	47.10	42.68	29.75
Leverett	26.81	26.87	26.87	20.46
Lexington	27.18	33.13	30.10	20.26
Leyden	25.32	70.65	47.79	42.78
Lincoln	16.45	18.53	17.46	20.39
Littleton	29.96	29.96	29.96	17.26
Longmeadow	25.73	26.12	25.89	21.07
Lowell	57.47	48.75	53.06	42.34
Ludlow	40.45	42.78	41.55	19.97
Lunenburg	40.93	50.47	45.62	23.98
Lynn	53.29	48.06	50.63	65.08
Lynnfield	27.37	34.34	30.79	20.03
Malden	43.45	48.44	45.88	50.96
Manchester	18.30	35.02	26.58	46.01
Mansfield	33.65	49.27	41.36	39.85
Marblehead	21.58	30.11	25.79	27.68
Marion	17.99	44.40	31.08	40.03
Marlborough	37.26	48.22	42.66	45.26
Marshfield	26.97	45.55	36.16	47.16
Mashpee	3.79	51.83	27.64	177.73
Mattapoisett	23.66	51.25	37.33	39.98
Maynard	35.54	48.00	41.68	42.91
Medfield	32.79	39.90	36.28	26.09
Medford	46.39	45.32	45.80	46.46
Medway	33.61	52.55	42.97	26.56
Melrose	39.94	40.40	40.11	38.73
Mendon	16.58	16.58	16.58	15.55
Merrimac	40.20	40.83	40.46	20.10
Methuen	39.46	48.10	43.70	30.47
Middleborough	38.23	48.50	43.28	39.43
Middlefield	0.00	0.00	0.00	0.00
Middleton	35.38	54.30	44.72	26.89
Milford	47.04	50.84	48.86	42.98
Millbury	51.67	50.30	50.92	30.30
Millis	32.48	46.43	39.36	36.84
Millville	37.48	37.48	37.48	18.43
Milton	29.69	31.86	30.73	34.91
Monroe	20.04	76.20	47.90	98.96
Monson	.95	.95	.95	.95
Montague	46.50	54.21	50.27	32.52
Monterey	12.20	56.54	34.20	50.83

APPENDIX 8-1B (continued)

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Montgomery	0.00	0.00	0.00	0.00
Mount Washington	4.88	33.29	18.98	97.25
Nahant	30.89	37.50	34.13	35.69
Nantucket	8.10	57.85	32.79	101.60
Natick	29.64	40.63	35.06	38.30
Needham	23.37	32.27	27.76	33.29
New Ashford	0.00	0.00	0.00	0.00
New Bedford	57.38	57.36	57.29	47.07
New Braintree	44.52	47.82	46.10	20.90
Newbury	32.65	32.65	32.65	15.25
Newburyport	42.52	51.31	46.83	32.84
New Marlborough	0.00	0.00	0.00	0.00
New Salem	32.54	41.63	37.01	25.93
Newton	28.53	28.27	28.36	37.65
Norfolk	35.99	56.77	46.26	33.25
North Adams	61.53	54.77	58.09	40.21
Northampton	41.99	45.26	43.56	28.42
North Andover	27.10	39.62	33.28	30.95
North Attleborough	36.74	41.16	38.89	24.24
Northborough	34.99	49.50	42.15	23.60
Northbridge	57.48	54.23	57.48	20.16
North Brookfield	32.40	32.40	32.40	15.31
Northfield	25.33	43.47	34.30	23.09
North Reading	34.02	47.52	40.68	30.77
Norton	34.50	48.12	41.22	20.65
Norwell	25.42	42.56	33.90	35.29
Norwood	34.20	42.02	38.04	32.19
Oak Bluffs	7.88	58.67	33.09	161.84
Oakham	28.71	43.57	36.05	22.71
Orange	41.42	41.42	41.42	16.67
Orleans	7.44	41.41	24.29	81.00
Otis	1.47	1.47	1.47	1.47
Oxford	46.74	46.74	46.74	19.15
Palmer	49.06	50.01	49.47	22.22
Paxton	32.06	41.94	36.92	17.85
Peabody	35.86	44.50	40.10	37.79
Pelham	15.37	15.37	15.37	10.46
Pembroke	35.71	52.90	44.20	27.93
Pepperell	37.59	37.59	37.59	19.24
Peru	0.00	0.00	0.00	0.00
Petersham	29.32	29.32	29.32	17.53
Phillipston	5.61	5.61	5.61	5.61
Pittsfield	41.05	46.69	43.80	38.97
Plainfield	17.74	89.73	53.46	68.84
Plainville	35.71	56.51	45.99	29.30
Plymouth	15.39	50.75	32.93	71.07
Plympton	20.72	47.38	33.93	53.63
Princeton	32.85	46.30	39.48	20.78
Provincetown	11.39	54.93	32.99	125.46
Quincy	39.83	45.82	42.75	53.18

APPENDIX 8-1B (continued)

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Randolph	39.12	49.01	43.98	44.63
Raynham	34.03	41.43	39.55	18.06
Reading	31.38	40.28	35.76	31.03
Rehoboth	14.14	14.14	14.14	14.14
Revere	44.43	47.87	46.08	52.80
Richmond	0.00	0.00	0.00	0.00
Rochester	20.98	20.98	20.98	20.24
Rockland	46.64	57.85	52.14	30.76
Rockport	17.15	41.64	29.29	40.76
Rowe	0.00	0.00	0.00	0.00
Rowley	33.43	36.40	36.40	19.95
Royalston	35.05	52.80	44.16	23.73
Russell	17.87	17.87	17.87	16.65
Rutland	38.97	45.57	42.19	18.41
Salem	32.22	47.20	39.61	60.55
Salisbury	21.51	63.23	42.19	49.63
Sandisfield	0.00	0.00	0.00	0.00
Sandwich	7.01	39.32	23.04	102.37
Saugus	31.16	45.50	38.24	37.67
Savoy	0.00	0.00	0.00	0.00
Scituate	30.98	43.67	37.24	49.95
Seekonk	27.92	44.77	36.25	22.78
Sharon	29.94	38.21	34.01	34.38
Sheffield	0.00	0.00	0.00	0.00
Shelburne	10.95	10.95	10.95	10.95
Sherborn	16.34	34.74	25.45	29.88
Shirley	43.21	36.74	39.94	29.98
Shrewsbury	33.45	41.33	37.32	24.85
Shutesbury	14.49	37.67	25.98	46.47
Somerset	14.73	49.37	31.90	47.40
Somerville	66.29	50.14	58.19	48.65
Southampton	29.93	29.93	29.93	17.83
Southborough	24.41	49.44	31.84	31.98
Southbridge	49.97	46.69	48.28	25.87
South Hadley	43.13	43.84	43.43	18.24
Southwick	29.68	35.11	35.11	20.26
Spencer	51.39	54.27	52.76	26.00
Springfield	64.69	54.27	59.43	39.19
Sterling	31.70	48.82	40.16	25.18
Stockbridge	17.93	40.28	29.00	33.50
Stoneham	33.96	41.97	37.89	36.39
Stoughton	36.62	50.24	43.33	32.69
Stow	28.42	42.32	35.28	25.84
Sturbridge	24.51	42.73	33.52	33.34
Sudbury	23.29	36.92	30.03	30.24
Sunderland	35.21	46.16	40.60	19.19
Sutton	33.56	33.56	33.56	17.16
Swampscott	26.62	30.39	28.46	35.22
Swansea	33.03	51.39	42.10	27.63
Taunton	50.52	51.42	50.90	37.53

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Templeton	37.92	37.92	37.92	17.97
Tewksbury	37.26	56.95	46.99	34.34
Tisbury	9.70	48.07	28.74	70.14
Tolland	8.14	64.00	35.86	86.09
Topsfield	25.53	38.12	31.74	21.28
Townsend	38.54	43.56	40.98	17.90
Truro	4.26	36.60	20.31	82.26
Tyngsborough	36.47	59.03	47.62	32.10
Tyringham	0.00	0.00	0.00	0.00
Upton	49.74	54.18	51.88	23.64
Uxbridge	47.65	55.56	51.51	25.36
Wakefield	33.26	40.06	36.59	39.50
Wales	28.92	28.92	28.92	25.14
Walpole	31.33	43.17	37.17	32.43
Waltham	29.07	42.45	35.68	43.00
Ware	56.58	48.54	52.52	21.34
Wareham	18.09	58.27	38.02	75.86
Warren	48.79	48.79	48.79	20.59
Warwick	36.66	58.49	49.07	28.39
Washington	0.00	0.00	0.00	0.00
Watertown	40.02	42.25	41.08	53.42
Wayland	24.80	32.04	28.36	30.32
Webster	59.79	50.61	55.15	19.85
Wellesley	21.70	25.13	23.38	28.09
Wellfleet	6.28	40.01	23.01	56.67
Wendell	36.11	57.34	57.34	42.92
Wenham	22.22	28.47	25.29	22.02
Westborough	28.52	49.19	38.74	33.64
West Boylston	31.00	40.24	35.55	22.52
West Bridgewater	33.69	47.81	40.66	32.95
West Brookfield	26.57	26.57	26.57	17.12
Westfield	36.64	48.09	42.28	35.62
Westford	33.76	51.62	42.58	39.41
Westhampton	24.86	49.68	37.15	27.48
Westminster	30.39	43.91	39.78	21.52
West Newbury	18.63	18.63	18.63	14.33
Weston	15.37	20.33	17.81	28.06
Westport	24.51	57.06	40.64	41.10
West Springfield	31.04	44.94	37.90	31.97
West Stockbridge	0.00	0.00	0.00	0.00
West Tisbury	8.62	47.29	27.81	56.96
Westwood	21.89	32.43	27.10	38.89
Weymouth	37.04	47.21	42.04	46.32
Whately	12.02	12.02	12.02	12.02
Whitman	44.63	50.51	47.49	25.20
Wilbraham	31.59	40.08	35.76	21.08
Williamsburg	27.05	27.05	27.05	14.45
Williamstown	31.73	36.50	34.06	18.89
Wilmington	27.53	53.46	40.37	38.42
Winchendon	58.52	52.50	55.45	30.07

City or Town	Eq. Val. Formula	Personal Income Formula	.5 Eq. Val. and .5 Personal Income Formula	Nonschool Levy as a % of Income Formula
Winchester	27.86	30.55	29.16	31.72
Windsor	23.88	54.12	38.86	41.62
Winthrop	43.80	42.77	43.23	36.40
Woburn	31.04	44.27	37.56	48.54
Worcester	60.88	45.90	53.37	45.73
Worthington	0.00	0.00	0.00	0.00
Wrentham	41.21	57.76	49.37	29.21
Yarmouth	11.60	51.39	31.34	63.76

APPENDIX 8-1B

State Aid Per Capita
Alternative Distribution Formulas

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Abington	34.60	33.50	45.95	31.19
Acton	26.00	28.90	45.95	43.49
Acushnet	29.88	35.43	45.95	29.65
Adams	46.05	44.57	45.95	34.91
Agawam	31.14	38.63	45.95	41.61
Alford	22.63	45.79	45.95	54.50
Amesbury	39.37	65.87	45.95	35.09
Amherst	21.70	57.33	45.95	57.58
Andover	27.46	32.52	45.95	42.84
Arlington	37.82	31.71	45.95	47.88
Ashburnham	29.55	49.26	45.95	36.83
Ashby	11.56	11.56	11.56	21.39
Ashfield	0.14	0.14	0.14	34.42
Ashland	31.97	35.48	45.95	38.03
Athol	43.84	31.86	45.95	35.44
Attleboro	39.74	27.68	45.95	36.50
Auburn	31.43	29.45	45.95	43.76
Avon	32.96	39.40	45.95	32.26
Ayer	41.35	73.81	45.95	42.98
Barnstable	26.38	33.70	33.70	53.43
Barre	38.40	21.72	45.95	33.82
Becket	0.00	0.00	0.00	47.70
Bedford	29.14	43.22	45.95	49.69
Belchertown	35.50	38.27	45.95	34.19
Bellingham	40.44	38.80	45.95	33.06
Belmont	30.42	23.26	45.95	55.30
Berkley	29.59	34.05	38.04	28.50
Berlin	30.94	29.38	45.95	35.93
Bernardston	24.76	35.29	35.29	35.02
Beverly	39.18	43.33	45.95	37.68
Billerica	37.75	44.62	45.95	33.08
Blackstone	36.94	38.34	45.95	36.06
Blandford	24.47	16.43	44.14	39.02
Bolton	26.02	25.57	45.95	49.67
Boston	91.58	70.27	45.95	80.21
Bourne	32.89	86.15	45.95	49.76
Boxborough	31.16	26.97	45.95	44.18
Boxford	23.96	14.36	45.95	37.55
Boylston	28.50	22.54	45.95	40.48
Braintree	33.84	46.75	45.95	39.70
Brewster	66.69	36.20	45.95	107.48
Bridgewater	34.49	39.32	45.95	30.49
Brimfield	20.01	20.01	20.01	21.53

APPENDIX 8-1B (continued)

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + 100M Dist. by the Comb. Formula
Brockton	45.24	61.85	45.95	35.27
Brookfield	29.50	30.27	35.27	34.89
Brookline	36.41	27.59	45.95	47.32
Buckland	25.76	25.76	25.76	25.76
Burlington	41.78	65.18	45.95	53.71
Cambridge	54.62	67.80	45.95	49.68
Canton	33.81	38.38	45.95	46.85
Carlisle	21.07	13.37	45.95	43.72
Carver	34.00	38.52	45.95	48.21
Charlemont	0.00	0.00	0.00	29.13
Charlton	27.19	28.81	32.47	31.70
Chatham	37.20	44.29	45.95	76.90
Chelmsford	26.63	19.29	45.95	39.17
Chelsea	79.80	70.68	45.95	38.31
Cheshire	0.00	0.00	0.00	17.14
Chester	0.00	0.00	0.00	22.51
Chesterfield	25.82	27.58	27.58	42.44
Chicopee	44.13	36.37	45.95	35.08
Chilmark	90.31	73.07	45.95	165.06
Clarksburg	7.67	7.67	7.67	16.12
Clinton	38.03	45.00	45.95	34.32
Cohasset	26.66	22.66	45.95	45.48
Colrain	0.00	0.00	0.00	-38.87
Concord	24.06	17.16	45.95	50.41
Conway	14.13	14.13	14.13	26.61
Cummington	25.02	38.81	45.95	49.71
Dalton	34.19	25.85	45.95	33.69
Danvers	32.89	46.50	45.95	38.50
Dartmouth	27.49	43.46	45.95	44.17
Dedham	31.51	31.23	45.95	45.80
Deerfield	21.45	21.45	21.45	23.96
Dennis	37.84	49.56	45.95	86.22
Dighton	30.80	31.28	45.95	34.60
Douglas	29.34	28.39	45.95	32.08
Dover	19.94	9.74	45.95	54.49
Dracut	37.54	30.88	45.95	31.64
Dudley	13.91	13.91	13.91	22.00
Dunstable	8.97	8.97	8.97	26.66
Duxbury	36.36	36.71	45.95	56.08
East Bridgewater	33.48	46.75	45.95	37.93
East Brookfield	28.75	23.08	41.60	33.76
Eastham	34.21	41.05	45.95	75.40
Easthampton	35.10	31.83	45.95	40.40
East Longmeadow	23.19	36.31	45.95	39.89
Easton	28.66	42.90	45.95	33.29
Edgartown	39.71	41.19	45.95	127.07
Egremont	0.00	0.00	0.00	39.85
Erving	53.63	15.69	45.95	75.54
Essex	30.97	51.76	45.95	42.75
Everett	39.74	66.36	45.95	58.63

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Fairhaven	38.76	40.91	45.95	34.41
Fall River	57.61	57.07	45.95	35.01
Falmouth	32.13	59.95	45.95	52.86
Fitchburg	42.65	58.40	45.95	42.91
Florida	53.09	67.36	45.95	41.91
Foxborough	33.90	45.82	45.95	31.43
Framingham	31.60	34.33	45.95	44.24
Franklin	33.35	38.58	45.95	29.84
Freetown	26.40	31.53	45.95	34.99
Gardner	45.81	42.11	45.95	39.59
Gay Head	326.08	76.32	45.95	249.43
Georgetown	26.16	33.77	34.06	29.65
Gill	23.22	23.22	23.22	28.14
Gloucester	37.37	55.29	45.95	40.47
Goshen	14.84	14.84	14.84	44.36
Gosnold	138.55	27.11	45.95	159.54
Grafton	29.63	23.63	30.12	30.12
Granby	30.73	27.50	41.96	35.27
Granville	24.59	36.52	45.95	46.93
Great Barrington	30.12	23.50	45.95	39.03
Greenfield	39.50	50.00	45.95	46.89
Groton	24.85	32.81	45.95	34.23
Groveland	22.48	22.48	22.48	22.48
Hadley	26.83	25.22	45.95	47.62
Halifax	47.66	65.56	45.95	49.13
Hamilton	25.46	20.01	45.95	36.30
Hampden	24.54	24.54	24.54	29.80
Hancock	0.00	0.00	0.00	19.63
Hanover	30.97	37.47	45.95	35.77
Hanson	32.88	42.51	45.95	37.65
Hardwick	29.72	27.89	29.72	29.72
Harvard	14.85	51.76	45.95	43.99
Harwich	38.72	65.34	45.95	73.38
Hatfield	28.34	26.35	45.95	42.87
Haverhill	40.96	37.78	45.95	32.40
Hawley	0.00	0.00	0.00	27.94
Heath	30.59	63.32	45.95	55.60
Hingham	35.50	32.55	45.95	49.55
Hinsdale	0.00	0.00	0.00	23.56
Holbrook	37.31	40.53	45.95	30.85
Holden	26.24	20.56	45.95	38.97
Holland	27.68	41.71	45.95	48.40
Holliston	25.47	25.66	41.25	41.25
Holyoke	48.29	49.44	45.95	39.85
Hopedale	38.55	44.65	45.95	44.28
Hopkinton	29.36	33.94	45.95	40.46
Hubbardston	29.61	26.17	39.56	35.79
Hudson	39.83	46.92	45.95	35.91
Hull	45.32	75.89	45.95	45.37
Huntington	0.00	0.00	0.00	20.26

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100 M Dist. by the Comb. Formula
Ipswich	33.78	44.20	45.95	35.84
Kingston	39.16	44.08	45.95	34.31
Lakeville	27.46	27.19	45.95	35.31
Lancaster	29.10	30.41	45.95	33.97
Lanesborough	27.33	19.01	28.29	28.29
Lawrence	50.85	46.89	45.95	34.49
Lee	35.38	39.20	45.95	42.22
Leicester	35.98	29.81	45.95	35.90
Lenox	24.48	28.48	45.95	34.44
Leominster	33.97	34.25	45.95	37.34
Leverett	23.55	22.81	26.87	26.87
Lexington	23.64	21.65	45.95	40.72
Leyden	33.99	43.04	45.95	38.99
Lincoln	18.38	20.71	45.95	51.15
Littleton	23.53	26.32	29.96	29.96
Longmeadow	23.33	15.57	45.95	57.42
Lowell	49.73	53.20	45.95	36.22
Ludlow	30.08	38.01	45.95	33.38
Lunenburg	32.33	26.60	45.95	39.79
Lynn	59.05	59.72	45.95	47.89
Lynnfield	23.62	18.19	45.95	40.21
Malden	47.09	55.72	45.95	39.44
Manchester	32.13	45.35	45.95	51.80
Mansfield	36.66	58.36	45.95	33.26
Marblehead	24.57	24.79	45.95	41.17
Marion	28.98	37.29	45.95	49.78
Marlborough	41.16	49.20	45.95	36.22
Marshfield	37.00	52.12	45.95	39.67
Mashpee	90.89	74.03	45.95	173.68
Mattapoisett	31.77	33.20	45.95	41.84
Maynard	39.13	41.26	45.95	39.06
Medfield	29.34	27.55	45.95	30.38
Medford	46.29	48.70	45.95	43.11
Medway	29.98	38.36	45.95	29.72
Melrose	39.22	31.77	45.95	50.68
Mendon	16.58	16.58	16.58	24.16
Merrimac	30.02	43.30	45.95	28.98
Methuen	34.85	37.24	45.95	29.54
Middleborough	38.72	48.27	45.95	35.80
Middlefield	0.00	0.00	0.00	49.90
Middleton	31.03	56.12	45.95	31.07
Milford	44.87	42.16	45.95	39.01
Millbury	40.82	36.99	45.95	35.42
Millis	34.57	32.44	45.95	36.73
Millville	37.48	37.48	37.48	33.95
Milton	32.22	23.13	45.95	47.62
Monroe	59.50	63.83	45.95	59.25
Monson	0.95	0.95	0.95	19.20
Montague	39.36	37.39	45.95	37.95
Monterey	31.51	40.75	45.95	67.43

APPENDIX 8-1B (Continued)

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Montgomery	0.00	0.00	0.00	24.02
Mount Washington	51.13	87.69	45.95	116.37
Nahant	33.21	44.87	45.95	42.37
Nantucket	54.90	60.82	45.95	31.51
Natick	33.89	38.21	45.95	46.68
Needham	28.27	24.21	45.95	48.24
New Ashford	0.00	0.00	0.00	47.42
New Bedford	52.05	57.18	45.95	35.45
New Braintree	32.57	38.10	45.95	32.64
Newbury	25.80	26.78	32.65	26.21
Newburyport	37.55	37.27	45.95	34.03
New Marlborough	0.00	0.00	0.00	42.67
New Salem	29.14	38.37	45.95	30.59
Newton	33.01	22.48	45.95	47.47
Norfolk	34.52	49.00	45.95	30.65
North Adams	50.68	55.74	45.95	36.51
Northampton	35.08	48.86	45.95	42.79
North Andover	28.95	39.97	45.95	35.92
North Attleborough	30.38	44.29	45.95	32.92
Northborough	29.19	37.63	45.95	35.97
Northbridge	41.42	32.90	45.95	36.64
North Brookfield	32.40	29.49	32.40	32.40
Northfield	24.14	24.79	45.95	50.30
North Reading	32.30	42.02	45.95	37.26
Norton	27.47	48.81	45.95	32.25
Norwell	30.29	35.97	45.95	40.63
Norwood	33.10	38.73	45.95	31.44
Oak Bluffs	84.96	82.79	45.95	143.03
Oakham	25.63	17.79	45.95	30.42
Orange	41.42	24.98	41.42	35.62
Orleans	44.26	39.72	45.95	85.04
Otis	1.47	1.47	1.47	42.70
Oxford	36.01	28.52	45.95	30.82
Palmer	35.48	32.10	45.95	37.54
Paxton	24.85	21.98	44.40	41.51
Peabody	36.72	34.35	45.95	37.38
Pelham	15.37	8.22	15.37	40.21
Pembroke	31.71	30.97	45.95	31.40
Pepperell	29.54	32.89	37.59	32.94
Peru	0.00	0.00	0.00	35.72
Petersham	24.30	27.95	29.32	29.32
Phillipston	5.61	5.61	5.61	17.10
Pittsfield	39.89	38.39	45.95	37.72
Plainfield	43.28	56.72	45.95	60.42
Plainville	32.40	28.13	45.95	28.70
Plymouth	43.23	63.21	45.95	56.23
Plympton	37.14	26.29	45.95	47.93
Princeton	26.71	22.00	45.95	40.19
Provincetown	68.48	72.41	45.95	100.76
Quincy	46.40	39.93	45.95	39.13

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Randolph	41.77	39.17	45.95	30.88
Raynham	25.93	21.27	41.43	35.48
Reading	31.12	26.24	45.95	39.35
Rehoboth	14.14	14.14	14.14	19.60
Revere	48.49	31.31	45.95	27.16
Richmond	0.00	0.00	0.00	17.96
Rochester	20.98	20.98	20.98	29.02
Rockland	38.56	55.89	45.95	33.13
Rockport	28.92	39.14	45.95	48.80
Rowe	0.00	0.00	0.00	344.89
Rowley	26.58	36.40	36.40	33.89
Royalston	29.28	32.88	45.95	32.27
Russell	17.87	17.87	17.87	30.21
Rutland	28.56	22.21	45.95	33.91
Salem	46.32	58.07	45.95	41.53
Salisbury	35.53	66.30	45.95	55.32
Sandisfield	0.00	0.00	0.00	46.46
Sandwich	54.75	77.38	45.95	102.93
Saugus	34.33	43.99	45.95	47.64
Savoy	0.00	0.00	0.00	25.28
Scituate	40.40	44.76	45.95	42.43
Seekonk	25.27	30.88	45.95	33.48
Sharon	32.08	23.76	45.95	38.79
Sheffield	0.00	0.00	0.00	26.46
Shelburne	10.95	10.95	10.95	26.06
Sherborn	23.07	27.04	45.95	54.98
Shirley	36.46	45.36	45.95	35.73
Shrewsbury	29.05	25.17	45.95	37.84
Shutesbury	30.46	50.17	45.95	69.46
Somerset	31.05	51.56	45.95	51.81
Somerville	57.27	57.16	45.95	41.79
Southampton	24.24	23.63	29.93	29.93
Southborough	28.13	26.51	45.95	43.03
Southbridge	37.76	35.68	45.95	35.12
South Hadley	30.54	30.99	45.95	38.56
Southwick	24.88	35.11	35.11	35.11
Spencer	38.53	31.55	45.95	35.72
Springfield	51.73	47.36	45.95	38.14
Sterling	28.35	34.96	45.95	41.77
Stockbridge	25.67	27.86	45.95	45.87
Stoneham	35.08	37.81	45.95	45.25
Stoughton	34.55	37.92	45.95	32.83
Stow	27.05	30.50	45.95	39.30
Sturbridge	28.86	31.64	45.95	44.80
Sudbury	26.71	22.78	45.95	51.64
Sunderland	27.09	34.64	45.95	37.21
Sutton	25.68	29.02	33.56	28.71
Swampscott	30.85	26.52	45.95	41.63
Swansea	30.23	36.81	45.95	35.13
Taunton	43.87	48.25	45.95	32.54

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Templeton	37.92	29.74	37.92	31.34
Tewksbury	35.69	44.11	45.95	34.87
Tisbury	39.94	53.57	45.95	108.17
Tolland	47.15	87.69	45.95	100.47
Topsfield	23.33	27.79	45.95	33.51
Townsend	28.09	22.29	45.95	35.89
Truro	43.31	73.22	45.95	150.28
Tyngsborough	34.18	49.21	45.95	39.44
Tyringham	0.00	0.00	0.00	70.17
Upton	36.53	26.07	45.95	32.50
Uxbridge	36.35	35.05	45.95	33.14
Wakefield	36.29	40.79	45.95	50.69
Wales	27.01	28.92	28.92	28.92
Walpole	31.79	34.34	45.95	34.47
Waltham	35.97	49.38	45.95	58.78
Ware	38.77	32.18	45.95	40.79
Wareham	46.97	68.69	45.95	61.60
Warren	34.55	25.39	45.95	33.89
Warwick	32.42	27.25	45.95	39.70
Washington	0.00	0.00	0.00	18.21
Watertown	46.62	49.36	45.95	49.25
Wayland	27.49	19.05	45.95	44.56
Webster	39.62	34.21	45.95	37.08
Wellesley	24.84	17.57	45.95	49.49
Wellfleet	31.49	50.81	45.95	102.19
Wendell	39.42	33.01	45.95	35.14
Wenham	22.05	21.15	45.95	43.96
Westborough	31.00	34.34	45.95	47.88
West Boylston	26.67	20.44	45.95	36.84
West Bridgewater	33.23	29.40	45.95	35.55
West Brookfield	24.87	24.44	26.57	27.00
Westfield	36.02	33.05	45.95	35.84
Westford	36.49	44.58	45.95	37.19
Westhampton	26.10	25.53	45.95	49.39
Westminster	25.87	31.04	43.91	34.69
West Newbury	18.63	18.63	18.63	18.63
Weston	21.68	13.52	45.95	87.64
Westport	32.75	49.29	45.95	35.59
West Springfield	31.42	49.30	45.95	50.31
West Stockbridge	0.00	0.00	0.00	21.19
West Tisbury	32.80	18.27	45.95	83.71
Westwood	30.35	22.83	45.95	47.76
Weymouth	41.58	44.52	45.95	40.83
Whately	12.02	12.02	12.02	28.39
Whitman	34.77	48.85	45.95	36.01
Wilbraham	26.23	21.22	45.95	39.16
Williamsburg	27.05	27.05	27.05	27.05
Williamstown	25.21	24.23	45.95	43.66
Wilmington	32.91	55.31	45.95	43.04
Winchendon	44.11	36.81	45.95	38.98

APPENDIX 8-1B (continued)

City or Town	Combination Formula: .5 Eq. Val. and .5 Nonschool Levy as a % of Income Formula	Federal Reserve Sharing Formula	Straight Per Capita Formula	State Takeover of County and Other Costs + $100M Dist. by the Comb. Formula
Winchester	29.71	25.40	45.95	53.73
Windsor	32.69	21.20	45.95	46.96
Winthrop	39.97	31.95	45.95	23.50
Woburn	39.71	56.08	45.95	42.36
Worcester	53.12	55.58	45.95	38.49
Worthington	0.00	0.00	0.00	32.74
Wrentham	35.08	50.51	45.95	28.33
Yarmouth	37.69	54.01	45.95	55.63

Notes to Appendix 8-1A and 8-1B

Sources:

All data are arranged by cities and towns.

Town code data are from Massachusetts Teachers Association.

Equalized assessed valuation data are from Massachusetts Department of
Corporations and Taxations, 1974 Proposed Equalized Valuations; State Tax Commission
Adjustments of the 1974 Proposed Equalized Valuations; The Commonwealth of
Massachusetts, House No. 5902, January 1, 1973, Biennial Report of the State Tax
Commission Submitting an Equalization and Apportionment upon the Several Cities
and Towns of the Amount of Property and the Proportion of Every one Thousand Dollars
of State or County Tax Which Should be Assessed Upon Each City and Town, and the
Commonwealth of Massachusetts, House No. 3303, April 1, 1963, Biennial Report of the State
Tax Commission Upon the Equalization and Apportionment of State and County Taxes.

Personal income data are from Massachusetts Department of Education, Division
of Research, Planning, and Evaluation, unpublished computer run "Cities and Towns
with Equalized Valuation Per School-Attending Child," September 13, 1973.

Massachusetts population data are from the Commonwealth of Massachusetts, Office
of the Secretary, January 1, 1971 State Census.

Per capita income calculations are based upon personal income figures and
population data. U.S. Bureau of the Census, 1970 Census of Population, Vol. 1,
"Characteristics of the Population," Part 23 Massachusetts, Table 10, U.S. Government
Printing Office, Washington, D.C., February, 1973.

Tax rate data are from Massachusetts Taxpayers Foundation, Tax Rates, 1972, 1973,
and 1975, Actual and Full Values and 1962 Taxtalk, October, 1962. Nonschool tax rates
were derived by multiplying the 1975 equalized tax rates by the 1973 ratio of school
to total tax rate, thus determining the 1975 school rate, then subtracting the 1975
school rate from the 1975 total rate, the difference being the 1975 nonschool rate.

Levy data are from Massachusetts Department of Corporations and Taxations,
1972 and 1973 Tax Levies: Personal and Real Property, Final Recapitulation Sheet;
Boston Safe Deposit and Trust Company, Financial Statistics of Massachusetts, 1962,
and 1975 nonschool levy was derived by multiplying 1975 nonschool tax rate by 1974
equalized assessed valuations.

Cherry sheet data are from Massachusetts Department of Corporations and Taxation,
State Tax Commission.

Quintile ranking was determined by dividing a city/town's equalized assessed
valuation by its population, then sorting the quotient in ascending order so that the
relatively "poorer" cities/towns headed the list.

Effect on Non-School Tax Rate of
Massachusetts Cities and Towns of Eliminating
State Apportionment Basis Assessments[1]

City or Town	1975 Non-School Tax Rates[2]	Reduction in State Levies	Total Removed Levies Per Capita	Non-School Tax Rate After Levies Are Removed	Percentage Change in Non-School Tax Rate
	($)	($)	($)	($)	(%)
Abington	14.12	215,481	16.84	10.52	25.48
Acton	11.61	459,425	32.71	8.91	23.32
Acushnet	8.96	137,466	17.25	6.09	32.03
Adams	22.81	184,921	15.81	16.96	25.65
Agawam	12.69	644,382	28.70	8.72	31.31
Alford	6.17	14,714	54.50	4.49	27.12
Amesbury	17.93	214,809	18.76	13.76	23.23
Amherst	9.94	658,294	48.58	6.07	38.98
Andover	12.97	757,257	31.45	10.03	22.69
Arlington	23.10	1,684,540	32.20	18.22	21.14
Ashburnham	10.14	86,351	24.57	6.73	33.60
Ashby	5.83	49,353	21.39	3.39	41.91
Ashfield	4.52	45,090	34.42	2.21	51.16
Ashland	13.24	217,198	24.77	9.97	24.70
Athol	19.17	190,886	17.26	12.88	32.78
Attleboro	21.42	648,215	20.02	17.15	19.92
Auburn	12.49	483,581	30.72	8.15	34.76
Avon	13.28	98,223	18.59	10.57	20.38
Ayer	26.67	121,848	25.83	23.29	12.68
Barnstable	5.34	1,060,250	53.43	4.02	24.60
Barre	12.71	71,290	17.89	7.32	42.41
Becket	3.31	46,551	47.70	1.86	43.69
Bedford	13.91	473,359	37.61	10.26	26.20
Belchertown	11.32	112,155	19.46	7.18	36.57
Bellingham	17.83	224,863	16.29	13.60	23.71
Belmont	19.04	1,198,770	42.68	14.94	21.52
Berkley	8.73	32,413	16.23	5.57	36.23
Berlin	11.15	50,206	23.09	7.35	34.02
Bernardston	8.62	41,498	24.75	4.54	47.31
Beverly	21.83	810,128	21.43	18.24	16.46
Billerica	15.49	577,069	17.43	11.96	22.81
Blackstone	12.53	124,863	20.74	7.21	42.45
Blanford	7.54	25,354	28.88	4.86	35.52
Bolton	8.89	78,348	38.88	5.72	35.65
Boston	105.60	26,281,600	42.22	86.40	18.19
Bourne	11.35	324,850	36.12	9.29	18.22
Boxborough	10.55	47,766	31.26	8.42	20.25
Boxford	11.35	114,916	27.61	9.01	20.62
Boylston	10.40	83,845	28.66	6.45	37.97
Braintree	15.28	921,912	25.66	12.30	19.51
Brewster	11.69	177,202	79.82	9.38	19.75
Bridgewater	12.80	196,821	16.19	9.31	27.26
Brimfield	6.68	41,965	21.53	4.35	34.92

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Brockton	27.45	1,324,270	16.51	23.39	14.79
Brookfield	8.56	46,267	22.66	4.55	46.79
Brookline	33.46	1,703,940	32.22	29.93	10.55
Buckland	7.11	46,266	24.90	4.51	36.58
Burlington	17.21	838,492	36.38	13.65	20.67
Cambridge	48.17	2,322,560	27.02	43.07	10.58
Canton	15.89	564,079	32.83	12.62	20.57
Carlisle	8.80	102,467	34.98	6.34	27.99
Carver	9.81	87,593	34.11	7.15	27.15
Charlemont	1.89	26,739	29.13	0.00	0.00
Charlton	7.64	93,514	20.43	4.58	40.00
Chatham	6.96	331,784	61.48	5.16	25.89
Chelmsford	9.62	853,370	28.13	5.74	40.36
Chelsea	78.55	146,141	5.21	69.66	11.32
Cheshire	4.14	53,035	17.14	1.83	55.71
Chester	4.27	24,537	22.51	2.35	44.95
Chesterfield	6.23	31,024	42.44	3.58	42.54
Chicopee	21.80	1,090,490	16.78	16.37	24.91
Chilmark	6.74	46,547	165.06	4.50	33.22
Clarksburg	5.71	32,328	16.12	3.19	44.22
Clinton	17.66	237,819	18.55	13.37	24.27
Cohasset	13.31	250,442	34.42	10.36	22.19
Colrain	1.79	48,306	34.48	0.00	0.00
Concord	11.75	674,904	40.43	8.65	26.33
Conway	5.65	28,524	26.61	3.50	37.96
Cummington	7.47	24,746	42.37	4.51	39.64
Dalton	13.82	149,352	19.51	9.64	30.25
Danvers	14.37	643,387	24.86	11.13	22.54
Dartmouth	10.16	630,892	32.77	6.93	31.82
Dedham	14.49	896,360	32.73	10.95	24.45
Deerfield	6.32	86,583	23.96	4.30	31.95
Dennis	6.41	524,898	70.52	4.60	28.25
Dighton	11.94	103,534	21.83	8.48	28.94
Douglas	9.40	59,252	19.91	6.09	35.26
Dover	11.09	215,085	46.23	8.56	22.76
Dracut	12.48	296,018	16.07	7.56	39.45
Dudley	6.15	163,597	22.00	3.56	42.21
Dunstable	4.95	35,296	26.66	3.64	26.50
Duxbury	16.74	338,284	40.99	13.72	18.07
East Bridgewater	13.41	199,175	24.04	9.70	27.70
East Brookfield	9.18	40,936	21.83	5.39	41.29
Eastham	6.05	165,071	71.49	4.51	25.41
Easthampton	15.15	342,918	25.84	10.48	30.82
East Longmeadow	8.89	400,351	30.27	5.79	34.85
Easton	10.86	247,782	21.40	7.88	27.46
Edgartown	6.85	193,668	110.60	4.72	30.99
Egremont	4.06	44,597	39.85	2.32	43.03
Erving	9.09	69,985	53.30	7.41	18.50
Essex	12.19	82,149	29.90	9.14	25.02
Everett	18.70	1,739,410	42.15	14.11	24.56

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Fairhaven	17.01	297,405	18.34	12.37	27.29
Fall River	33.21	1,088,510	11.12	26.42	20.45
Falmouth	8.76	645,451	39.54	6.77	22.73
Fitchburg	23.09	999,163	25.22	17.30	25.08
Florida	7.73	13,387	19.89	6.60	14.60
Foxborough	14.51	246,863	17.37	11.66	19.65
Framingham	16.20	1,887,380	31.13	12.86	20.61
Franklin	11.59	276,965	16.01	7.96	31.32
Freetown	8.37	98,971	24.04	5.59	33.23
Gardner	23.86	412,114	20.59	17.52	26.57
Gay Head	13.66	12,333	114.19	9.96	27.03
Georgetown	7.74	98,646	18.80	4.93	36.34
Gill	6.37	36,301	28.14	4.12	35.39
Gloucester	19.35	591,762	24.97	16.31	15.69
Goshen	5.25	23,156	44.36	3.04	42.02
Gosnold	8.77	7,758	102.08	4.73	46.10
Grafton	8.25	234,498	20.85	4.51	45.36
Granby	9.45	124,889	22.52	5.30	43.94
Granville	7.30	41,556	38.76	4.51	38.26
Great Barrington	11.11	195,456	26.53	7.66	31.07
Greenfield	20.24	546,918	30.51	15.67	22.57
Groton	8.35	120,207	23.92	5.48	34.34
Groveland	7.36	84,187	16.02	4.51	38.75
Hadley	9.63	131,210	36.50	5.16	46.43
Halifax	21.79	107,076	29.37	17.39	20.20
Hamilton	9.79	169,688	25.74	6.97	28.85
Hampden	6.89	127,934	29.80	4.00	41.93
Hancock	2.20	13,385	19.63	.97	55.90
Hanover	12.37	239,587	22.93	9.38	24.18
Hanson	12.55	169,981	24.02	9.04	27.95
Hardwick	8.45	48,792	23.58	4.51	46.64
Harvard	10.04	118,975	37.83	7.61	24.18
Harwich	7.78	332,641	57.32	6.03	22.41
Hatfield	10.19	90,017	31.12	6.54	35.80
Haverhill	21.32	681,882	15.42	16.64	21.92
Hawley	.47	6,371	27.94	0.00	0.00
Heath	7.57	15,363	42.91	5.28	30.22
Hingham	19.92	679,024	34.83	15.86	20.38
Hinsdale	1.67	28,596	23.56	.37	77.70
Holbrook	16.39	181,314	15.37	12.83	21.72
Holden	10.14	357,460	28.09	6.57	35.24
Holland	6.97	40,136	36.92	4.56	34.63
Holliston	8.23	404,080	32.68	4.51	45.20
Holyoke	27.53	960,981	19.83	21.53	21.81
Hopedale	17.51	121,415	28.29	12.08	31.01
Hopkinton	12.03	166,583	28.29	8.74	27.32
Hubbardston	8.33	35,167	23.51	4.87	41.48
Hudson	18.77	315,919	19.39	14.22	24.26
Hull	26.73	238,131	26.57	22.33	16.47
Huntington	3.47	32,886	20.26	1.36	60.73

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Ipswich	14.59	244,258	21.83	11.41	21.77
Kingston	16.25	112,373	18.07	13.37	17.72
Lakeville	9.42	105,157	23.93	6.72	28.65
Lancaster	10.06	117,244	21.90	6.38	36.53
Lanesborough	7.57	64,010	20.37	4.51	40.38
Lawrence	29.70	908,227	13.40	23.46	21.00
Lee	15.53	173,747	27.54	11.51	25.90
Leicester	12.61	175,433	20.98	7.27	42.30
Lenox	8.47	135,309	24.29	5.99	29.27
Leominster	14.98	754,083	23.25	11.04	26.34
Leverett	6.49	27,143	25.04	4.51	30.53
Lexington	10.26	1,032,840	30.91	7.22	29.65
Leyden	9.47	9,534	24.89	6.75	28.69
Lincoln	11.18	216,612	43.53	8.86	20.70
Littleton	6.98	167,489	26.41	4.51	35.39
Longmeadow	12.82	764,671	47.74	8.76	31.70
Lowell	30.82	1,309,260	15.60	25.10	18.58
Ludlow	11.66	339,946	20.90	7.95	31.85
Lunenburg	12.01	206,435	26.38	7.53	37.30
Lynn	44.56	1,989,650	23.40	37.54	15.76
Lynnfield	9.86	348,039	30.42	6.83	30.71
Malden	28.23	1,118,630	19.91	23.51	16.71
Manchester	14.85	201,033	38.48	12.24	17.56
Mansfield	16.80	176,013	18.06	13.72	18.32
Marblehead	12.25	682,227	30.97	9.81	19.95
Marion	10.02	139,777	37.76	7.55	24.60
Marlborough	21.60	539,676	19.15	17.88	17.19
Marshfield	17.24	378,946	24.33	14.30	17.07
Mashpee	8.03	162,778	135.99	6.22	22.57
Mattapoisett	11.40	142,333	28.67	8.67	23.90
Maynard	19.62	218,942	22.83	15.80	19.46
Medfield	13.24	179,798	18.21	10.50	20.70
Medford	29.36	1,486,490	23.91	23.86	18.74
Medway	10.49	137,423	17.28	7.74	26.20
Melrose	23.64	1,115,910	34.41	18.07	23.55
Mendon	5.80	58,082	24.16	3.92	32.49
Merrimac	12.22	54,270	16.53	9.02	26.22
Methuen	15.44	529,192	15.08	12.23	20.77
Middleborough	19.19	239,332	19.74	15.43	19.62
Middlefield	3.98	15,368	49.90	1.90	52.23
Middleton	10.82	76,876	18.20	7.80	27.95
Milford	24.55	395,874	20.40	19.51	20.56
Millbury	19.21	218,316	18.49	14.18	26.20
Millis	15.91	128,002	22.39	12.63	20.62
Millville	11.02	29,445	17.12	5.12	53.52
Milton	20.09	927,740	34.26	16.20	19.36
Monroe	16.07	7,813	34.57	12.80	20.33
Monson	4.64	142,317	19.20	1.93	58.48
Montague	17.22	184,701	21.62	12.37	28.18
Monterey	6.77	41,632	58.80	4.51	33.41

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Montgomery	3.02	12,829	24.02	1.14	62.37
Mount Washington	8.81	4,473	95.17	7.24	17.75
Nahant	18.15	116,899	28.60	14.55	19.84
Nantucket	8.79	37,028	8.74	8.09	8.00
Natick	17.25	999,472	32.62	13.45	22.06
Needham	14.89	1,121,950	36.51	11.79	20.83
New Ashford	1.35	9,058	47.42	0.00	0.00
New Bedford	29.08	1,389,010	13.86	23.48	19.25
New Braintree	12.01	12,417	19.13	8.02	33.27
Newbury	7.80	60,854	15.51	5.16	33.83
Newburyport	16.81	281,647	18.45	12.83	23.68
New Marlborough	3.45	42,243	42.67	1.76	49.00
New Salem	12.52	9,937	18.50	9.78	21.88
Newton	23.46	2,991,630	33.78	19.73	15.88
Norfolk	13.02	77,626	16.34	9.98	23.32
North Adams	27.89	285,781	15.49	21.71	22.16
Northampton	16.28	725,511	28.24	11.34	30.36
North Andover	13.07	355,114	23.92	10.39	20.49
North Attleborough	13.36	328,954	20.32	10.03	24.90
Northborough	10.30	231,260	23.86	6.84	33.61
Northbridge	14.49	236,439	19.46	8.13	43.90
North Brookfield	9.18	78,663	19.75	4.51	50.90
Northfield	8.31	97,140	40.29	4.80	42.19
North Reading	13.60	267,958	23.86	10.11	25.64
Norton	9.14	172,964	20.85	6.08	33.48
Norwell	13.01	231,561	28.07	10.17	21.83
Norwood	16.18	548,483	17.71	13.22	18.28
Oak Bluffs	13.43	123,420	107.79	10.33	23.10
Oakham	9.24	13,753	19.79	6.84	26.00
Orange	12.78	106,561	17.22	5.67	55.65
Orleans	8.99	256,011	66.69	7.25	19.37
Otis	4.56	33,046	42.70	3.12	31.51
Oxford	11.35	161,850	15.89	6.84	39.75
Palmer	13.46	271,067	22.83	8.39	37.64
Paxton	8.42	111,162	31.21	4.76	43.45
Peabody	18.80	1,024,470	22.15	15.11	19.61
Pelham	5.63	40,332	40.21	2.70	51.94
Pembroke	11.64	205,225	18.25	8.56	26.50
Pepperell	8.66	117,953	20.69	5.02	41.97
Peru	1.11	10,322	35.72	.17	84.43
Petersham	7.03	23,173	22.45	4.51	35.86
Phillipston	5.10	15,497	17.10	3.30	35.32
Pittsfield	21.15	1,202,480	21.17	16.89	20.14
Plainfield	8.40	13,887	42.47	5.45	35.11
Plainville	11.43	78,266	15.27	8.61	24.66
Plymouth	13.31	769,040	38.30	10.93	17.89
Plympton	14.48	40,791	32.53	11.75	18.87
Princeton	9.11	51,825	29.12	5.47	39.89
Provincetown	16.06	197,683	72.36	12.91	19.66
Quincy	28.54	1,781,230	19.88	24.26	15.02

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Randolph	22.00	385,147	13.56	18.67	15.11
Raynham	8.39	170,071	24.72	5.07	39.59
Reading	14.93	598,063	26.44	11.53	22.76
Rehoboth	5.66	129,105	19.60	4.07	28.08
Revere	30.26	300,548	7.05	26.94	10.97
Richmond	4.09	26,043	17.96	2.98	27.20
Rochester	5.82	53,600	29.02	4.01	31.12
Rockland	15.31	270,475	17.14	11.06	27.76
Rockport	10.37	218,933	36.80	8.06	22.21
Rowe	4.24	104 501	334.89	3.32	21.64
Rowley	7.86	71,489	22.87	4.74	39.67
Royalston	9.60	15,133	20.12	6.49	32.41
Russell	5.99	43,620	30.21	3.49	41.83
Rutland	9.72	65,508	22.06	6.09	37.39
Salem	25.53	845,838	22.32	21.85	14.42
Salisbury	10.42	174,065	40.58	7.15	31.40
Sandisfield	2.77	26,113	46.46	1.05	62.05
Sandwich	11.26	329,012	80.23	9.28	17.61
Saugus	15.93	813,577	33.40	11.84	25.64
Savoy	4.29	8,292	25.28	3.02	29.71
Scituate	21.88	450,312	25.67	18.27	16.53
Seekonk	8.77	256,356	23.00	6.20	29.32
Sharon	16.63	329,333	25.49	13.44	19.21
Sheffield	4.28	70,640	26.46	2.63	38.46
Shelburne	5.57	49,382	26.06	3.04	45.44
Sherborn	8.68	159,160	45.41	6.21	28.47
Shirley	21.77	68,323	20.60	17.52	19.51
Shrewsbury	12.42	498,328	25.79	8.94	28.03
Shutesbury	11.03	30,343	56.82	8.27	25.09
Somerset	8.73	723,505	38.93	6.63	24.04
Somerville	39.72	1,529,300	18.04	32.10	19.19
Southampton	7.05	78,611	25.04	4.51	36.03
Southborough	12.22	185,321	31.37	9.33	23.65
Southbridge	17.10	323,599	19.46	12.27	28.24
South Hadley	11.08	389,141	25.89	6.50	41.30
Southwick	7.38	160,453	26.35	4.51	38.86
Spencer	15.20	176,672	19.74	10.15	33.22
Springfield	28.84	2,820,510	16.69	22.06	23.53
Sterling	10.10	132,684	30.01	6.45	36.08
Stockbridge	9.21	80,774	35.23	6.94	24.58
Stoneham	18.18	654,071	30.70	13.96	23.25
Stoughton	14.71	433,226	18.50	11.41	22.48
Stow	10.71	111,925	28.08	7.64	28.67
Sturbridge	11.81	158,218	32.83	8.79	25.57
Sudbury	11.78	561,525	40.57	8.47	28.08
Sunderland	9.04	54,078	25.97	5.43	39.87
Sutton	7.69	79,513	18.06	4.97	35.36
Swampscott	19.05	392,080	28.84	16.00	16.01
Swansea	10.96	280,792	22.59	7.77	29.11
Taunton	22.77	580,796	14.34	18.25	19.86

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Templeton	10.91	90,256	14.97	5.62	48.50
Tewksbury	13.87	459,504	20.07	10.30	25.77
Tisbury	8.74	204,376	91.61	5.85	33.03
Tolland	6.76	12,120	85.96	4.51	33.27
Topsfield	8.80	129,024	23.84	6.45	26.74
Townsend	9.78	105,359	24.24	5.97	38.92
Truro	5.91	148,031	150.29	4.15	29.78
Tyngsborough	12.24	108,949	25.26	8.29	32.31
Tyringham	4.39	17,893	70.17	2.57	41.55
Upton	13.40	61,716	17.35	8.95	33.18
Uxbridge	13.43	150,769	18.06	9.09	32.34
Wakefield	20.25	876,994	35.64	15.61	22.91
Wales	6.82	21,556	23.05	4.51	33.88
Walpole	14.53	380,618	21.29	11.56	20.44
Waltham	18.18	2,429,190	43.86	13.48	25.85
Ware	15.36	193,070	24.71	9.01	41.34
Wareham	14.54	480,068	42.11	11.48	21.08
Warren	11.06	74,619	19.56	6.51	41.15
Warwick	10.41	15,887	26.26	6.40	38.47
Washington	4.05	7,377	18.21	2.95	27.21
Watertown	31.25	1,152,540	29.91	25.83	17.35
Wayland	14.49	459,168	33.16	11.45	20.98
Webster	14.48	302,133	20.64	8.38	42.10
Wellesley	14.98	1,052,670	39.19	12.03	19.72
Wellfleet	5.49	178,224	102.19	3.73	32.14
Wendell	10.20	8,213	18.79	6.71	34.21
Wenham	10.61	118,703	34.81	7.92	25.32
Westborough	12.04	468,664	35.02	8.29	31.19
West Boylston	10.71	161,154	25.78	7.57	29.33
West Bridgewater	14.34	135,781	21.77	11.04	22.98
West Brookfield	6.91	68,273	27.00	4.47	35.29
Westfield	16.76	642,531	20.90	13.15	21.56
Westford	15.92	235,549	22.06	12.46	21.70
Westhampton	8.49	31,118	38.56	5.11	39.78
Westminster	8.18	108,149	23.96	5.28	35.45
West Newbury	6.25	43,180	18.08	4.51	27.81
Weston	13.10	851,044	78.65	9.40	28.28
Westport	10.90	222,681	22.01	8.50	22.01
West Springfield	13.63	1,067,410	37.28	9.34	31.50
West Stockbridge	2.49	27,654	21.19	.75	69.96
West Tisbury	6.41	47,215	83.71	4.42	30.96
Westwood	16.22	476,179	35.17	13.34	17.74
Weymouth	22.44	1,312,980	23.58	18.28	18.54
Whately	5.24	31,660	28.39	3.52	32.85
Whitman	13.75	279,586	21.59	9.33	32.15
Wilbraham	10.26	345,913	28.28	6.85	33.18
Williamsburg	7.69	46,175	19.73	4.51	41.36
Williamstown	10.14	231,538	33.20	6.33	37.58
Wilmington	12.22	507,089	29.39	8.96	26.68
Winchendon	20.69	133,168	20.68	14.42	30.32

APPENDIX 9-1 (continued)

City or Town	1975 Non-School Tax Rates[2] ($)	Reduction in State Levies ($)	Total Removed Levies Per Capita ($)	Non-School Tax Rate After Levies Are Removed ($)	Percentage Change in Non-School Tax Rate (%)
Winchester	17.86	943,886	41.40	13.74	23.05
Windsor	11.34	16,233	33.40	8.25	27.21
Winthrop	23.02	133,859	6.92	20.19	12.30
Woburn	21.01	897,891	25.89	17.40	17.21
Worcester	37.45	2,756,400	16.46	31.01	17.21
Worthington	3.50	25,141	32.74	1.58	54.84
Wrentham	12.87	99,518	13.78	9.66	24.96
Yarmouth	8.89	537,135	40.00	7.11	19.97

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[1]State apportionment basis assessments are charges for county costs, county hospitals, state and MDC recreation areas and air pollution control programs. Cherry Sheet assessments do not reflect Boston's payment for Suffolk County, accordingly $22.9 million was added to Boston's assessment to reflect that cost.

[2]These are actual 1975 tax rates adjusted to an equalized school and nonschool basis. However, some rates were not announced before the calculations were made and were estimated according to the method described in Appendix 4-1.

SUMMARY OF MAJOR MASSACHUSETTS STATE TAXES

STATE TAXES

I. PERSONAL INCOME TAX

Taxable interest, dividends and net capital gains (Part A income) are taxed at the rate of 9%.

Interest on Massachusetts savings deposits and interest received by licensed pawnbrokers are taxed at the rate of 5%.

All other taxable income (Part B income) is taxed at the rate of 5%.

Personal Exemptions

The following exemptions are allowed first against Part B income, and any balance against Part A income:

Single person: $2,000

Married persons filing a joint return: $2,000 plus the earned income of the spouse having the smaller such income (up to $2,000), plus $600 if that spouse's income is less than $2,000.

Married persons filing separately: $1,000.

Taxpayers 65 years of age or older: $600 additional.

Blind taxpayers: $2,000 additional.

Dependents: $600 each.

Medical expenses and adoption agency fees are also treated as exemptions.

Statutory Credits Against Tax

Resident individual with total taxable income of himself and spouse, if any, not exceeding $5,000 for taxable year is entitled to the following statutory credits:

Taxpayer: $4

Spouse: $4

Each dependent: $8

Appendix 10-1
(continued)

II. BUSINESS EXCISE TAXES

A. Corporation Excise (Income)

The corporation excise (income) tax is the higher of the following (I or II):

I

Tangible Property (or Net Worth) and Net Income

The sum of
(a) 8.55% of net income allocated to Massachusetts, and

(b) $5.76 per $1,000 upon the value of its tangible property not subject to local taxation and situated in Massachusetts on the last day of the taxable year in the case of a tangible property corporation (or its net worth allocable to Massachusetts in the case of an intangible property corporation), or

II

Flat Rate Minimum

$114.

Special rates apply to corporations exclusively dealing in securities for their own account and not as brokers, including regulated investment companies and bank holding companies.

B. Other Business Excise Taxes

1. Commercial Banks

National banks, trust companies and Morris Plan banks: Rate is set by State Tax Commission according to statutory formula but cannot exceed 11.4%. Current rate (applicable to returns filed in 1974) is 11.4% of net income.

2. Savings Banks

Savings banks, cooperative banks and savings and loan associations: 1.14% of net operating income for the taxable year plus 0.057% of the average amount of deposits less certain deductions at the end of each six-month period of the taxable year.

3. Insurance Companies

Life insurance and savings banks - 1/4 of 1% of net value policies in force, or, alternatively, gross premiums less return premiums and dividends, or 2% of premiums, whichever is smaller,

Appendix 10-1
(continued)

plus 14% surtax. Domestic insurers and savings and insurance banks, 1% on gross investment income. Domestic life insurers-- for taxable years beginning after December 31, 1972 and before January 1, 1975, an additional annual tax equal to 44% of the gross premiums tax (or net values tax) is imposed on domestic life insurance companies. This additional tax is computed before the 14% surtax is added and is not imposed on premiums tax attributable to annuity contracts. However, the additional tax is not imposed on a company if 40% or more of its premiums (other than those for annuity contracts) are allocable to Massachusetts. Domestic and foreign insurers, except life, 50% of increase in income exceeding 9% of gross premiums derived from savings in costs due to no-fault insurance.

Marine and fire -- 5% of underwriting profit allocated to Massachusetts plus 14% surtax.

Other--Domestic, 2% plus 14% surtax. Foreign, 2% plus 14% surtax.

4.   Public Utilities

Utility corporations are taxed at the rate of 6.5% of net income during the taxable year allocated to Massachusetts.

III. GENERAL SALES TAX

3% of gross receipts from retail sales or storage, use or consumption of taxable property.

Major Exemptions:

food products for human consumption
clothing up to $175 of the sales price of any article
clothing materials
prescription medicines and prosthetic devices
gasoline, alcoholic beverages, meals and cigarettes
newspapers, magazines and school books
fuel for heating purposes

IV. SELECTIVE SALES TAX

A.   Gasoline

7 1/2¢ per gallon of gasoline, other-motor vehicle fuel, and diesel motor fuel sold, exported or used.

B.   Cigarettes

16¢ per pack

C.   Alcohol

Malt beverages, $2.40 per barrel. Other taxes per wine gallon as follows: cider, 3% to 6% alcohol, 2¢; wine, 40¢; sparking wines, 50¢; other beverages: 24% or less alcohol, 80¢; over 24% to 50% alcohol, $2.95; over 50% alcohol, $2.95 (per proof gallon) plus 14% surtax.

D.   Meals

5% on meals of $1 or more and on all sales of alcoholic beverages for on-premises consumption.

E.   Room Occupancy

5% of rental charge plus 14% surtax

F.   Racing

From 2% to 11 3/4% of amount wagered per day, depending upon the type of racing, plus additional 1% tax plus 1/2 breakage.

V.   INHERITANCE TAX

Class A--1.8% to 11.8% of clear market value of all property except intangible property of non-resident decedents, transferred at death, or during lifetime in contemplation of death, and relationship of transferee to decedent, plus 14% surtax. Exempt--spouse, $30,000, other Class A beneficiaries, $15,000.

Class B--3% to 14.3% plus 14% surtax. Exempt, $5,000.

Class C--5.5% to 19.3% plus 14% surtax. Exempt, $5,000.

Class D--8% to 19.3% plus 14% surtax. Exempt, $5,000.

Estate--amount by which federal credit exceeds inheritance taxes payable to all states including Massachusetts.

Technical Appendix
to
Personal Income Tax Derivation

A. 1975 Law

Massachusetts tax revenues are estimated at $1,029.5 million in fiscal 1975

according to the Budget document, House No. 1. The distribution of these tax

revenues across income classes was estimated in several stages, each based on

the 1971 and 1972 publications of the Internal Revenue Service, Statistics of

Income (S.I.). For 1971, detailed information is available for Massachusetts taxpayers,

and detailed nationwide data are available for 1972 along with limited Massachusetts

information.

1. Adjusted Gross Income (AGI)

Total Massachusetts adjusted gross income for 1974 of $27 billion was

projected by applying the national historical ratio of AGI to personal income (80

percent) to the Data Resources, Incorporated forecast of 1974 Massachusetts

personal income. The distribution of AGI among income classes was then based

on trends established in a 1965-1971 base period.

2. Number of Returns

The number of returns in each income class was estimated by dividing AGI by

1971 average Massachusetts AGI in each class. Total returns are projected to remain

nearly constant from 1972 at 2.3 million. Returns were then adjusted as described in

Section A-g of this Appendix to reflect the non-taxable status granted to certain

low-income returns.

3. Earned Income (Taxable at 5 Percent)

Income taxable at 5 percent is derived by first subtracting from AGI the

income taxable at 9 percent (the full amount of capital gains income, interest

taxable at 9 percent and dividends). Next are subtracted the dollar value of

personal exemptions and deductions for medical expenses and contributions to

Social Security. The remaining income, which includes interest from Massachusetts

savings accounts, is taxed at 5 percent.

a. Capital Gains Income

In 1974 capital gains for Massachusetts was estimated at $800 million, close to the 1972 level. This amount was distributed among income classes by multiplying nationwide 1971 average gains per income class by the number of Massachusetts returns estimated in each class for 1974 (Statistics of Income, 1971, Individual Income Tax Returns, Table 1.4, p. 18). This amount was then reduced as described in Section A-g. Since AGI only includes the half of capital gains income which is treated as ordinary income, only half the adjusted gains, distributed as described above, was subtracted from AGI in the calculation of earned income.

b. Dividends

Income from dividends was estimated at $651 million for Massachusetts in 1974 and distributed by calculating average nationwide 1971 income from dividends in each class and assuming that average for Massachusetts returns (S.I., 1971, Table 1.4, p. 19). Next,   dividend income was adjusted downward so that it included only income on taxable returns (Section A-g). Last, dividend income was subtracted from AGI to calculate earned income.

c. Interest

Interest income, projected at $920 million, was distributed among income classes just as income from capital gains and dividends (S.I., 1971, Table 1.4, p. 19). The amount of interest income in each class was then divided between income taxable at 5 percent (interest from Massachusetts savings accounts) and income taxable at 9 percent in several steps. First, at income levels under $50,000, 69.3 percent of interest income was assumed to originate in savings accounts. In upper income brackets ($50,000 plus), savings accounts yield only 49 percent of interest income. (Dorothy S. Projector and Gertrude S. Weiss, Survey of Financial Characteristics of Consumers, 1966, Table A-10, p. 118). These proportions, applied to the total amount of interest in each class, yielded the amount of interest from savings banks (taxable at 5 percent). Subtracting this amount in each income class from the total yielded the amount taxable at 9 percent.

d. Personal Exemptions

The average number of exemptions per return in each income class was calcu-
lated for Massachusetts 1971 returns (S.I., 1971, Table 5.5, p. 230). Then, total
returns for 1974 were divided between single and joint returns according to the 1971
Massachusetts proportions (S.I., 1971, Table 5.5, p. 230). The 1972 nationwide
proportions of husband-wife families with two earners were then applied to the
number of joint returns to estimate the number of returns claiming an additional
$1,400 exemption for a working spouse (Current Population Reports, Consumer Money
Income in 1972, Table 32, p. 88). The dollar value of exemptions in each income
class was calculated by assuming a $2,000 value for the first exemption and $600 or
the appropriate fraction thereof for each of the remaining exemptions. (For example,
in the under $2,000 AGI class, which averaged 1.3 exemptions, the dollar value was
(1) ($2,000) + (0.3)($600) = $2,180.) This figure was then multiplied by the num-
ber of single-earner returns in each category. The number of two-earner husband-
wife returns was multiplied by $1,400 for each class, and this figure, added to
the single-earner total, yielded the total dollar value of exemptions in each
income class. This figure was then subtracted from AGI in the calculation of earned
income.

e. Contributions to Social Security

Massachusetts allows taxpayers to deduct from taxable income the amount of
Social Security contributions. This deduction was estimated by income class in
several steps. First, 1971 ratios of Massachusetts wages and salaries to AGI were
calculated in each income class and applied to the 1974 AGI estimates (S.I., 1971,
Table 5.5, p. 230). The total wage and salary figures for each AGI class were
then divided by the number of returns in each class to yield an average wage by
class. Returns were divided between single and double earner families as discussed
above under "Personal Exemptions." For single-earner returns, the amount of Social
Security contributions at the 1974 rate of 5.85% (up to a maximum contribution of

$772.20 at the wage ceiling of $13,200) was determined for these average wage figures and multiplied by the number of single-earner returns for the total dollar value of Social Security contributions. For double-earner returns, the amount of Social Security contributions (at a rate of 11.7% up to a maximum contribution of $1,544.40 at the wage ceiling of $26,400) was calculated for the average wage figures and multiplied by the number of double-earner returns. The sum of contributions by single and double earner returns in each income class, adjusted for nontaxable returns, was then subtracted from AGI to calculate the amount of earned income.

f.   Medical Deductions

Medical deductions in 1974 were projected at $389 million, assuming growth over 1972 at the same rate as the DRI forecast of the consumer price index. This number was then distributed among income classes in the same proportion as 1972 nationwide deductions for medical expenses (S.I., 1972 Preliminary, Table 5, p. 22), reduced for nontaxable returns, and subtracted from AGI in the calculation of earned income.

g.   Adjustment for No-Tax Status

The 5% rate on earned income was then applied to taxable earned income in each income class. However, Massachusetts imposes no tax on single individuals earning less than $3,000 and married couples with joint income less than $5,000. In the under $2,000 class, then, no tax was imposed. Between $2,000 and $4,000, the proportion of single returns in the $2-3,000 bracket and all joint returns were considered nontaxable. In 1971 these nontaxable returns accounted for 59.8% of total Massachusetts returns in the $2-4,000 category, and therefore, taxable income in this income class was reduced by that proportion. In the $4-6,000 class, only those joint returns with income under $5,000 were granted nontaxable status; they accounted for 17.9% of all Massachusetts returns in the class of 1971, and that percentage of the tax base was therefore eliminated.

4. <u>Unearned Income (Taxed at 9%)</u>

The full amount of income from sales of capital assets, dividends and interest (distributed as described above) was multiplied by 9% to yield total tax revenues from unearned income. Revenues in the lower three income brackets were reduced as described above under "Adjustment for No-Tax Status."

B. <u>All Income at 5.484%</u>

Presently unearned income is taxed at 9% in Massachusetts while earned income is taxed at the lower rate of 5%. In order to assess the distributional implications of taxing all income at the same rate, deductions were made for Social Security contributions, medical expenses and exemptions, and the full amount of capital gains, dividends and interest income were included in taxable income. Since Massachusetts currently imposes no tax for single individuals earning less than $3,000 and married individuals with joint income less than $5,000, all income in the under $2,000 category was considered tax-exempt, along with 40% of the income in the $4-6,000 class and 18% of the income in the $6-8,000 class. (See Part A of this Appendix for the derivation of the portions of taxable income which are excluded at lower income brackets.) Taxable income then totaled $20.1 billion, which would necessitate a state tax of 5.484% to raise the $1,029.5 million in fiscal 1975. This rate was levied on taxable income in each income class to estimate the incidence of the tax.

C. <u>U.S. Taxable Income at 5.918%</u>

The first piggyback scheme considered was taxing U.S. taxable income at a flat rate. U.S. taxable income in Massachusetts was estimated for 1974 by applying the ratio of taxable income to AGI to the 1974 Massachusetts AGI projections in each income class. The 1972 national ratios of taxable income to AGI were used up to $10,000, while the 1971 Massachusetts proportions were applied in income categories over $10,000. (The 1972 raise in the personal exemption was significant enough

in lower income classes to warrant use of 1972 ratios, but only nationwide data
were available for 1972. At upper income levels, where the change in the personal
exemption was less significant, Massachusetts ratios were applied.) These ratios
were used to estimate taxable income in Massachusetts under Federal law. With
taxable income thus projected at $17.4 billion, a flat rate of 5.918% of
U.S. taxable income would raise $1,029.5 million in fiscal 1975. This rate was
then applied to the estimated taxable income in each class.

D. U.S. Taxable Income Including Full Amount of Capital Gains at 5.785 %

Taxes under this scheme were calculated in the same manner as taxes in the
first piggyback scheme, except that the full amount of net gains from sales of
capital assets was included in taxable income. This broadening of the tax base
lowered the necessary tax rate to 5.785%.

E. Federal Tax Liability at 27.52 %

The third piggyback scheme considered was to tax at some given percentage
the Federal tax liability. The 1971 ratios of Massachusetts Federal tax liability
to adjusted gross income in each income class were applied to 1974 AGI estimates
to yield 1974 Federal income tax liabilities of Massachusetts taxpayers. Total
Federal income tax liability was projected by this method at $3,741 million.
Therefore, in order for Massachusetts to raise $1,029.5 million in state individual
income tax revenues, the state tax liability would be set at 27.52 % of the
Federal. ($1,029.5 million ÷ $3,741 million = 27.52% .) This percentage
was applied to the estimated Federal tax liability in each class to calculate state
tax revenues by income class.

F. New York Rate Structure

The New York progressive rate structure was applied to Massachusetts taxable
income (adjusted gross income less exceptions, deductions for medical expenses
and Social Security contributions and including the full amount of capital gains,

dividends and interest income). First taxable income was divided by the number
of returns in each income class, yielding an average taxable income figure to
which the marginal rates in Table A-1 were applied. Tax credits were given where
appropriate (see Table A-1) and the after-credit average tax was then multiplied
by the number of returns to estimate total tax revenues in each income class.
For fiscal 1975, this rate system would raise more revenues than necessary,
so the total taxes in each income class were adjusted downward to total $1,029.5
million.

Table A-1

Progressive Rate Structure

First $1,000	1.8%	
$1,000-$3,000	2.7	Credits
$3,001-$5,000	3.6	If tax is: credit is --
$5,001-$7,000	4.5	
$7,001-$9,000	5.4	$100 or less ... full amount of tax
$9,001-$11,000	6.3	
$11,001-$13,000	7.2	
$13,001-$15,000	8.1	$100-$200 ... difference between $200
$15,001-$17,000	9.0	and amount of tax
$17,001-$19,000	9.9	
$19,001-$21,000	10.8	
$21,001-$23,000	11.6	$200+ ... no credit
$23,001-$25,000	12.5	
Over $25,000	13.4	

APPENDIX 14-1

Property Tax Rates for Individual Cities and Towns Under Sample Reform Plans

City or Town	1975 Tax Rate	Plans IA & IB		Plan II		Plans IIIA & IIIB	
		Tax Rate	Percent Change	Tax Rate	Percent Change	Tax Rate	Percent Change
Abington	$32.60	$28.61	-12.2%	$30.91	-5.2%	$27.99	-14.1%
Acton	31.36	29.74	-5.2	35.80	+14.2	29.48	-6.0
Acushnet	23.33	20.43	-12.4	26.15	+12.1	21.80	-6.6
Adams	45.43	37.71	-17.0	40.52	-10.8	32.50	-28.5
Agawam	33.12	30.15	-9.0	36.82	+11.2	28.14	-15.0
Alford	11.50	10.81	-6.0	17.25*	+50.0	12.73	+10.7
Amesbury	44.93	40.25	-10.4	44.55	-0.8	32.32	-28.1
Amherst	33.24	31.78	-4.4	38.70	+16.4	28.43	-14.5
Andover	35.03	33.14	-5.4	40.93	+16.8	30.81	-12.0
Arlington	46.88	43.02	-8.2	49.50	+5.6	39.47	-15.8
Ashburnham	30.72	27.99	-8.9	31.72	+3.3	25.34	-17.5
Ashby	33.09	31.77	-4.0	32.88	-0.6	23.56	-28.8
Ashfield	18.05	18.04	-0.1	25.02	+38.6	18.93	+4.9
Ashland	33.49	30.74	-8.2	35.53	+6.1	29.27	-12.6
Athol	38.32	30.55	-20.3	37.64	-1.8	35.54	-7.3
Attleboro	41.19	36.55	-11.3	39.71	-3.6	34.70	-15.8
Auburn	35.91	32.79	-8.7	38.80	+8.0	27.20	-24.3
Avon	34.69	31.92	-8.0	37.36	+7.7	29.62	-14.6
Ayer	42.38	39.13	-7.7	41.73	-1.5	40.73	-3.9
Barnstable	13.62	12.97	-4.8	20.43*	+50.0	14.85	+9.0
Barre	38.97	32.85	-15.7	33.74	-13.4	24.73	-36.5
Becket	15.52	15.52	0.0	23.28*	+50.0	17.46	+12.5
Bedford	36.94	34.81	-5.8	41.35	+11.9	31.04	-16.0
Belchertown	25.45	21.15	-16.9	23.51	-7.6	22.78	-10.5
Bellingham	35.20	30.03	-14.7	32.41	-7.9	30.60	-13.1
Belmont	37.11	34.86	-6.1	42.06	+13.3	36.66	-1.2
Berkley	28.72	25.44	-11.4	27.96	-2.6	23.29	-18.9
Berlin	38.33	35.07	-8.5	36.97	-3.5	26.63	-30.5
Bernardston	34.18	31.29	-8.5	32.67	-4.4	24.06	-29.6
Beverly	37.64	33.90	-9.9	40.30	+7.1	35.51	-5.7

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Plans IA & IB Percent Change	Plan II Tax Rate	Plan II Percent Change	Plans IIIA & IIIB Tax Rate	Plans IIIA & IIIB Percent Change
Billerica	$35.50	$31.47	-11.4%	$32.92	-7.3%	$29.22	-17.7%
Blackstone	43.07	37.62	-12.7	36.94	-14.2	24.78	-42.5
Blanford	18.35	16.67	-9.2	22.98	+25.2	18.27	-0.4
Bolton	34.99	33.33	-4.7	41.07	+17.4	26.40	-24.5
Boston	135.98	113.05	-16.9	102.86	-24.4	101.32	-25.5
Bourne	17.49	16.12	-7.8	24.39	+39.5	17.94	+2.6
Boxborough	30.51	29.01	-4.9	37.31	+22.3	27.73	-9.1
Boxford	27.25	25.75	-5.5	31.60	+16.0	27.63	+1.4
Boylston	32.75	29.97	-8.5	34.28	+4.7	25.93	-20.8
Braintree	33.66	31.11	-7.6	37.60	+11.7	31.06	-7.7
Brewster	21.20	19.76	-6.8	29.21	+37.8	21.69	+2.3
Bridgewater	39.07	35.13	-10.1	36.90	-5.6	27.63	-29.3
Brimfield	30.38	28.21	-7.1	30.23	-0.5	23.11	-23.9
Brockton	51.61	46.40	-10.1	48.11	-6.8	41.09	-20.4
Brookfield	31.90	28.51	-10.6	31.64	-0.8	22.94	-28.1
Brookline	50.89	48.17	-5.3	56.59	+11.2	50.06	-1.6
Buckland	28.48	25.88	-9.1	26.91	-5.5	22.96	-19.4
Burlington	42.08	39.31	-6.6	46.17	+9.7	34.07	-19.0
Cambridge	72.39	66.79	-7.7	74.32	+2.7	65.99	-8.8
Canton	38.24	35.88	-6.2	43.66	+14.2	32.17	-15.9
Carlisle	31.86	30.67	-3.7	38.03	+19.4	28.80	-9.6
Carver	32.44	30.56	-5.8	38.34	+18.2	27.87	-14.1
Charlemont	24.19	24.19	0.0	27.71	+14.6	20.65	-14.6
Charlton	24.78	22.16	-10.6	25.38	+2.4	22.98	-7.3
Chatham	13.77	12.90	-6.3	20.65*	+50.0	14.81	+7.6
Chelmsford	33.34	30.70	-7.9	34.94	+4.8	23.78	-28.7
Chelsea	89.43	70.91	-20.7	69.25	-22.6	71.07	-20.5
Cheshire	27.05	27.05	0.0	29.42	+8.8	22.03	-18.6
Chester	24.16	24.16	0.0	28.25	+16.9	22.99	-4.8
Chesterfield	26.67	25.05	-6.1	31.57	+18.4	22.58	-15.3
Chicopee	37.46	30.63	-18.2	32.38	-13.6	31.60	-15.6
Chilmark	11.22	9.99	-11.0	16.83*	+50.0	11.97	+6.7
Clarksburg	32.86	31.66	-3.7	32.00	-2.6	22.05	-32.9
Clinton	32.71	27.96	-14.5	31.39	-4.0	28.39	-13.2
Cohasset	34.11	32.38	-5.1	40.26	+18.0	29.65	-13.1

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
Colrain	$21.18	$21.18	0.0%	$27.09	+27.9%	$20.58	-2.8%
Concord	37.19	35.72	-4.0	43.47	+16.9	32.14	-13.6
Conway	18.44	17.30	-6.2	23.09	+25.2	19.03	+3.2
Cummington	21.78	20.28	-6.9	27.83	+27.8	21.78	0.0
Dalton	36.96	32.72	-11.5	33.91	-8.3	28.32	-23.4
Danvers	35.68	32.92	-7.7	40.00	+12.1	31.42	-11.9
Dartmouth	27.44	25.43	-7.3	33.18	+20.9	26.07	-5.0
Dedham	31.69	29.25	-7.7	36.90	+16.4	30.08	-5.1
Deerfield	18.87	17.06	-9.6	22.54	+19.4	18.73	-0.7
Dennis	12.88	12.09	-6.1	19.32*	+50.0	13.98	+8.5
Dighton	30.04	26.96	-10.3	31.89	+6.2	26.69	-11.2
Douglas	26.48	23.45	-11.4	27.46	+3.7	23.81	-10.1
Dover	28.07	27.15	-3.3	35.77	+27.4	29.09	+3.6
Dracut	40.49	34.65	-14.4	31.50	-22.2	23.92	-40.9
Dudley	25.73	24.08	-6.4	26.99	+4.9	22.22	-13.6
Dunstable	19.81	19.36	-2.3	26.40	+33.3	21.08	+6.4
Duxbury	41.15	39.19	-4.8	47.13	+14.5	35.02	-14.9
East Bridgewater	37.01	33.73	-8.9	37.21	+0.5	28.69	-22.5
East Brookfield	23.87	20.65	-13.5	24.11	+1.0	22.22	-6.9
Eastham	14.55	13.86	-4.7	21.82*	+50.0	15.75	+8.2
Easthampton	34.94	30.88	-11.6	35.31	+1.1	29.69	-15.0
East Longmeadow	27.27	25.46	-6.6	31.33	+14.9	25.39	-26.1
Easton	37.18	34.61	-6.9	38.60	+3.8	27.38	-26.3
Edgartown	11.98	11.32	-5.5	17.97*	+50.0	13.26	+10.7
Egremont	15.05	15.05	0.0	22.57*	+50.0	16.98	+12.8
Erving	15.90	14.70	-7.5	23.85*	+50.0	16.66	+4.8
Essex	27.75	25.54	-8.0	33.79	+21.8	27.21	-1.9
Everett	40.67	37.56	-7.6	44.39	+9.1	37.05	-8.9
Fairhaven	39.58	34.35	-13.2	37.28	-5.8	29.04	-26.6
Fall River	49.12	37.95	-22.7	39.09	-20.7	38.93	-20.7
Falmouth	23.06	21.85	-5.2	31.04	+34.6	23.61	+2.4
Fitchburg	47.04	41.28	-12.2	45.44	-3.4	35.07	-25.4
Florida	18.14	16.71	-7.9	26.77	+47.6	19.48	+7.4
Foxborough	36.77	33.69	-8.4	38.17	+3.8	30.45	-17.2
Framingham	35.45	33.07	-6.7	40.32	+13.7	32.33	-8.8

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
Franklin	$39.92	$35.87	-10.1%	$36.89	-7.6%	$25.61	-35.8%
Freetown	29.23	27.13	-7.2	32.45	+11.0	24.14	-17.4
Gardner	46.48	39.14	-15.8	43.53	-6.3	34.13	-26.6
Gay Head	17.47	12.64	-27.6	22.25	+27.4	14.52	-16.9
Georgetown	29.58	27.09	-8.4	29.80	+0.7	23.22	-21.5
Gill	21.78	19.92	-8.5	26.36	+21.0	21.61	-0.8
Gloucester	39.34	36.54	-7.1	43.62	+10.9	36.07	-8.3
Goshen	17.64	16.90	-4.2	24.14	+36.8	18.74	+6.2
Gosnold	10.76	7.25	-32.6	16.03	+49.0	9.25	-14.0
Grafton	29.68	26.00	-12.4	29.33	-1.2	22.34	-24.7
Granby	29.15	25.53	-12.4	26.16	-10.3	23.78	-18.4
Granville	19.86	18.40	-7.4	26.35	+32.7	20.30	+2.2
Great Barrington	31.32	28.66	-8.5	36.15	+15.4	26.62	-15.0
Greenfield	39.11	35.26	-9.8	41.43	+5.9	34.23	-12.5
Groton	28.37	26.29	-7.3	31.68	+11.7	25.78	-9.1
Groveland	34.12	31.27	-8.4	30.06	-11.9	22.39	-34.4
Hadley	29.35	26.83	-8.6	33.14	+12.9	26.03	-11.3
Halifax	32.39	28.12	-13.2	33.22	+2.6	29.70	-8.3
Hamilton	27.97	25.99	-7.1	32.44	+16.0	25.58	-8.5
Hampden	31.74	29.36	-7.5	31.47	-0.9	22.58	-28.8
Hancock	6.59	6.59	0.0	9.88*	+50.0	8.54	+29.6
Hanover	33.02	30.43	-7.8	33.81	+2.4	28.52	-13.6
Hanson	36.85	33.79	-8.3	37.10	+0.7	28.45	-22.8
Hardwick	37.75	33.80	-10.5	34.10	-9.7	31.98	-15.3
Harvard	30.53	29.71	-2.7	37.93	+24.2	28.83	-5.6
Harwich	15.38	14.46	-6.0	23.07*	+50.0	16.30	+6.0
Hatfield	23.32	20.91	-10.3	27.48	+17.8	22.44	-3.8
Haverhill	48.28	42.37	-12.2	45.08	+6.6	33.30	-31.0
Hawley	4.77	4.77	0.0	7.15*	+50.0	6.56	+37.5
Heath	15.98	14.72	-7.9	23.67	+48.1	16.68	+4.4
Hingham	40.31	37.40	-7.2	42.45	+5.3	35.62	-11.6
Hinsdale	17.40	17.40	0.0	22.92	+31.7	18.99	+9.1
Holbrook	36.45	32.14	-11.8	34.46	-5.4	29.85	-18.1
Holden	28.74	26.33	-8.4	31.93	+11.1	25.82	-10.2
Holland	24.13	22.75	-5.7	31.04	+28.6	24.61	+2.0

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Plans IA & IB Percent Change	Plan II Tax Rate	Plan II Percent Change	Plans IIIA & IIIB Tax Rate	Plans IIIA & IIIB Percent Change
Holliston	$37.36	$35.07	-6.1%	$39.64	+6.1%	$25.31	-32.3%
Holyoke	44.91	37.63	-16.2	40.85	-9.0	38.03	-15.3
Hopedale	45.77	41.04	-10.3	45.35	-0.9	30.83	-32.6
Hopkinton	31.27	28.88	-7.6	35.10	+12.2	27.62	-11.7
Hubbardston	34.30	31.44	-8.3	35.64	+3.9	24.05	-29.9
Hudson	42.41	37.36	-11.9	39.00	-8.0	31.17	-26.5
Hull	49.00	44.60	-9.0	44.66	-8.9	41.09	-16.1
Huntington	21.48	21.48	0.0	21.09	-1.8	20.89	-2.7
Ipswich	34.84	31.85	-8.6	37.97	+9.0	29.50	-15.3
Kingston	30.06	26.77	-10.9	31.84	+5.9	28.32	-5.8
Lakeville	26.50	24.40	-7.9	29.73	+12.2	25.21	-4.9
Lancaster	29.10	25.95	-10.8	31.43	+8.0	26.19	-10.0
Lanesborough	30.26	27.31	-9.7	30.06	-0.7	22.79	-24.7
Lawrence	49.51	40.31	-18.6	43.19	-12.8	37.79	-23.7
Lee	39.62	29.25	-26.2	35.27	-11.0	29.99	-24.3
Leicester	38.47	33.12	-13.9	32.85	-14.6	24.62	-36.0
Lenox	25.17	23.41	-6.9	30.74	+22.1	25.04	-0.5
Leominster	29.74	26.15	-12.1	31.27	+5.1	27.79	-6.6
Leverett	25.04	23.31	-6.9	28.76	+14.9	24.23	-3.2
Lexington	38.68	36.91	-4.6	43.70	+13.0	29.74	-23.1
Leyden	19.72	17.35	-12.0	20.99	+6.4	19.01	-3.6
Lincoln	27.89	27.06	-3.0	35.68	+27.9	28.96	+3.8
Littleton	25.08	23.14	-7.7	28.01	+11.7	23.08	-8.0
Longmeadow	33.92	32.27	-4.9	38.94	+14.8	30.10	-11.3
Lowell	47.45	39.59	-16.6	40.48	-14.7	39.91	-15.9
Ludlow	30.02	26.68	-11.1	29.30	-2.4	26.04	-13.3
Lunnenburg	34.89	31.25	-10.4	34.13	-2.2	26.25	-24.8
Lynn	68.63	59.98	-12.6	62.09	-9.5	52.50	-23.5
Lynnfield	33.48	31.70	-5.3	39.18	+17.0	27.88	-16.7
Malden	44.84	39.21	-12.5	43.34	-3.3	39.77	-11.3
Manchester	29.46	27.84	-5.5	36.44	+23.7	29.71	+0.8
Mansfield	37.11	33.72	-9.1	36.50	-1.6	32.15	-13.4
Marblehead	27.32	25.86	-5.3	34.57	+26.5	27.69	+1.4
Marion	23.27	21.83	-6.2	30.62	+31.6	23.65	+1.6
Marlborough	37.70	33.48	-11.2	37.68	-0.1	34.72	-7.9

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
Marshfield	$41.42	$38.67	-6.6%	$43.13	+4.1%	$39.73	-4.1%
Mashpee	13.75	12.80	-6.9	20.62*	+50.0	14.76	+7.3
Mattapoisett	27.80	25.73	-7.4	33.64	+21.0	27.48	-1.2
Maynard	37.69	33.86	-10.2	39.93	+5.9	33.96	-9.9
Medfield	34.88	32.23	-7.6	36.85	+5.6	29.52	-15.4
Medford	49.61	43.70	-11.9	46.84	-5.6	40.66	-18.0
Medway	38.21	35.44	-7.2	38.71	+1.3	27.26	-28.7
Melrose	52.06	47.75	-8.3	53.10	+2.0	38.44	-26.2
Mendon	22.37	21.07	-5.8	26.68	+19.3	22.72	-1.6
Merrimac	37.35	34.03	-8.9	32.27	-13.6	26.54	-28.9
Methuen	29.71	25.92	-12.8	31.14	+4.8	26.98	-9.2
Middleborough	38.98	34.91	-10.4	37.66	-3.4	32.82	-15.8
Middlefield	14.42	14.42	0.0	21.63*	+50.0	16.19	+12.3
Middleton	34.28	31.26	-8.8	35.72	+4.2	26.58	-22.5
Milford	46.65	40.84	-12.5	44.62	-4.4	36.27	-22.3
Millbury	41.73	35.92	-13.9	37.44	-10.2	30.60	-26.7
Millis	39.82	36.73	-7.8	42.25	+6.1	31.00	-22.1
Millville	40.41	33.90	-16.1	29.66	-26.6	21.90	-45.8
Milton	36.29	33.66	-7.2	40.76	+12.3	34.97	-3.6
Monroe	25.27	21.99	-13.0	31.17	+23.3	23.96	-5.2
Monson	27.26	27.13	-0.5	28.49	+4.5	21.17	-22.3
Montague	36.28	31.24	-13.9	33.75	-7.0	29.79	-17.9
Monterey	11.50	10.45	-9.1	17.25*	+50.0	12.40	+7.8
Montgomery	15.80	15.80	0.0	20.41	+29.2	17.59	+11.3
Mount Washington	10.34	9.65	-6.7	15.51*	+50.0	11.65	+12.7
Nahant	35.44	32.61	-8.0	39.91	+12.6	33.28	-6.1
Nantucket	13.66	12.43	-9.0	20.49*	+50.0	14.37	+5.2
Natick	41.01	38.25	-6.7	44.94	+9.6	33.31	-18.8
Needham	34.18	32.36	-5.3	40.38	+18.1	32.96	-3.6
New Ashford	6.78	6.78	0.0	10.17*	+50.0	8.74	+28.9
New Bedford	45.77	37.55	-18.0	40.09	-12.4	38.05	-16.9
New Braintree	27.15	23.16	-14.7	26.56	-2.2	24.93	-8.2
Newbury	30.91	28.32	-8.4	30.72	-0.6	23.82	-22.9
Newburyport	40.69	36.30	-10.8	40.11	-1.4	31.13	-23.5

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
New Marlborough	$12.18	$12.18	0.0%	$18.27*	+50.0%	$14.09	+15.7%
New Salem	26.61	24.00	-9.8	26.14	-1.8	25.17	-5.4
Newton	49.80	47.21	-5.2	54.61	+9.7	43.15	-13.4
Norfolk	33.88	30.46	-10.1	35.65	+5.2	27.78	-18.0
North Adams	47.49	38.91	-18.1	40.82	-14.0	36.74	-22.6
Northampton	39.68	35.63	-10.2	40.98	+3.3	31.40	-20.9
North Andover	28.04	25.88	-7.7	33.14	+18.2	27.50	-1.9
North Attleborough	31.28	28.21	-9.8	32.30	+3.3	28.15	-10.0
Northborough	33.56	30.75	-8.4	33.61	+0.1	25.74	-23.3
Northbridge	35.91	28.72	-20.0	30.53	-15.0	25.03	-30.3
North Brookfield	38.34	33.66	-12.2	33.36	-13.0	22.28	-41.9
Northfield	25.34	23.66	-6.6	30.94	+22.1	24.64	-2.8
North Reading	35.17	32.14	-8.6	35.62	+1.3	28.88	-17.9
Norton	31.03	28.42	-8.4	32.56	+4.9	25.25	-18.6
Norwell	38.24	36.13	-5.5	45.74	+19.6	31.07	-18.8
Norwood	35.84	32.73	-8.7	38.59	+17.7	31.37	-12.5
Oak Bluffs	24.10	22.26	-7.6	30.77	+27.7	24.04	-0.2
Oakham	21.01	18.98	-9.7	23.86	+13.6	19.87	-5.4
Orange	43.05	34.78	-19.2	28.72	-33.3	21.26	-50.6
Orleans	14.98	14.07	-6.1	22.47*	+50.0	16.02	+6.9
Otis	12.45	12.40	-0.4	18.67*	+50.0	13.88	+11.5
Oxford	35.29	30.02	-14.9	26.86	-23.9	23.57	-33.2
Palmer	35.78	30.99	-13.4	40.57	+13.4	26.13	-27.0
Paxton	26.56	24.37	-8.2	30.38	+14.4	24.26	-8.7
Peabody	38.57	34.94	-9.4	39.77	+3.1	33.25	-13.8
Pelham	28.39	27.27	-3.9	34.52	+21.6	23.94	-15.7
Pembroke	30.22	27.11	-10.3	29.55	-2.2	26.55	-12.1
Pepperell	33.02	29.76	-9.9	31.46	-4.7	24.07	-27.1
Peru	11.56	11.56	0.0	17.34*	+50.0	13.53	+17.0
Petersham	18.97	16.88	-11.0	23.25	+22.6	18.55	-2.2
Phillipston	17.97	17.37	-3.3	17.93	-0.2	19.00	+5.7
Pittsfield	42.14	37.64	-10.7	42.56	+1.0	34.95	-17.1
Plainfield	18.42	16.31	-11.5	24.00	+30.3	17.63	-4.3
Plainville	29.74	26.55	-10.7	30.03	+1.0	26.24	-11.8
Plymouth	26.47	24.64	-6.9	33.79	+27.7	26.40	-0.3

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Plans IA & IB Percent Change	Plan II Tax Rate	Plan II Percent Change	Plans IIIA & IIIB Tax Rate	Plans IIIA & IIIB Percent Change
Plympton	$28.67	$26.55	-7.4%	$34.26	+19.5%	$28.41	-0.9%
Princeton	28.68	26.26	-8.4	30.97	+8.0	24.67	-14.0
Provincetown	26.41	24.26	-8.1	32.73	+23.9	25.96	-1.7
Quincy	49.74	44.66	-10.2	50.03	+0.6	42.19	-15.2
Randolph	39.36	34.86	-11.4	37.68	-4.3	35.46	-9.9
Raynham	39.19	36.76	-6.2	39.07	-0.3	24.15	-38.4
Reading	35.05	32.36	-7.7	37.95	+8.3	30.78	-12.2
Rehoboth	24.75	23.60	-4.6	28.85	+16.6	23.25	-6.1
Revere	52.04	46.11	-11.4	51.70	-0.7	42.47	-18.4
Richmond	17.63	17.63	0.0	25.65	+45.5	19.52	+10.7
Rochester	22.71	21.41	-5.7	28.80	+26.8	22.84	+0.6
Rockland	36.46	31.51	-13.6	31.52	-13.5	28.26	-22.5
Rockport	20.12	18.75	-6.8	27.80	+38.2	20.53	+2.0
Rowe	6.84	6.84	0.0	10.26*	+50.0	8.84	+29.2
Rowley	34.08	31.63	-7.2	37.02	-8.6	24.71	-27.5
Royalston	27.00	24.17	-10.5	26.12	-3.3	24.27	-10.1
Russell	27.10	25.62	-5.5	30.86	+13.9	22.95	-15.3
Rutland	27.63	24.56	-11.1	28.65	+3.7	24.49	-11.4
Salem	44.25	40.14	-9.3	47.32	+6.9	39.87	-9.9
Salisbury	28.18	26.07	-7.5	33.93	+20.4	26.25	-6.8
Sandisfield	9.26	9.26	0.0	13.89*	+50.0	11.00	+18.8
Sandwich	18.77	17.72	-5.6	27.36	+45.8	19.64	+4.6
Saugus	35.34	32.39	-8.3	39.06	+10.5	30.80	-12.8
Savoy	12.50	12.50	0.0	18.75*	+50.0	14.15	+13.2
Scituate	40.03	36.58	-8.6	40.71	+1.7	36.30	-9.3
Seekonk	26.24	24.30	-7.4	29.86	+13.8	25.00	-4.7
Sharon	41.93	39.29	-6.3	46.88	+11.8	32.40	-22.7
Sheffield	16.55	16.55	0.0	24.82*	+50.0	18.39	+11.1
Shelburne	26.04	24.98	-4.1	29.09	+11.7	22.84	-12.3
Sherborn	33.35	32.32	-3.1	40.74	+22.2	26.89	-19.4
Shirley	32.10	27.77	-13.5	29.94	-6.7	28.82	-10.2
Shrewsbury	29.93	27.25	-9.0	32.09	+7.2	27.66	-7.6
Shutesbury	23.33	22.12	-5.2	30.54	+30.9	24.00	+2.9
Somerset	21.11	19.85	-6.0	29.14	+38.0	21.73	+2.9

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
Somerville	$59.06	$48.61	-17.7%	$49.76	-15.7%	$46.10	-21.9%
Southampton	25.15	23.09	-8.2	26.97	+7.2	22.81	-9.3
Southborough	31.75	29.86	-6.0	36.07	+13.6	29.20	-8.0
Southbridge	34.03	28.84	-15.3	32.64	-4.1	29.33	-13.8
South Hadley	32.48	28.85	-11.2	31.50	-3.0	25.16	-22.5
Southwick	25.28	23.25	-8.0	27.29	+8.0	23.40	-7.4
Spencer	31.56	26.11	-17.3	28.46	-9.8	27.55	-12.7
Springfield	53.41	44.20	-17.2	44.73	-16.3	37.81	-29.2
Sterling	30.65	28.18	-8.1	33.98	+10.9	25.67	-16.2
Stockbridge	21.40	20.14	-5.9	29.06	+35.8	21.98	+2.7
Stoneham	39.11	35.83	-8.4	41.27	+5.5	33.57	-14.2
Stoughton	37.95	34.47	-9.2	39.51	+4.1	29.15	-23.2
Stow	35.69	33.58	-5.9	38.35	+7.5	28.08	-21.3
Sturbridge	31.08	29.13	-6.3	35.69	+14.8	28.22	-9.2
Sudbury	37.69	35.98	-4.5	47.35	+25.6	29.67	-21.3
Sunderland	20.10	17.47	-13.1	25.41	+26.4	19.21	-4.4
Sutton	24.88	22.44	-9.8	26.66	+7.2	23.22	-6.7
Swampscott	38.41	36.15	-5.9	44.09	+14.8	35.45	-7.7
Swansea	26.31	23.57	-10.4	29.71	+12.9	25.15	-4.4
Taunton	39.32	33.22	-15.5	36.22	-7.9	33.81	-14.0
Templeton	25.31	18.90	-25.3	15.72	-37.9	20.16	-20.3
Tewksbury	30.44	26.78	-12.0	29.10	-4.4	27.86	-8.5
Tisbury	19.72	18.66	-5.4	27.09	+37.4	20.45	+3.7
Tolland	12.12	11.06	-8.7	18.18*	+50.0	13.02	+7.4
Topsfield	30.32	28.68	-5.4	33.66	+11.0	26.56	-12.4
Townsend	27.34	24.36	-10.9	26.55	-2.9	24.58	-10.1
Truro	10.38	9.88	-4.8	15.57*	+50.0	11.83	+14.0
Tyngsborough	34.58	31.15	-9.9	35.30	+2.1	26.59	-23.1
Tyringham	9.22	9.22	0.0	13.83*	+50.0	11.15	+20.9
Upton	32.96	27.96	-15.2	29.00	-12.0	26.13	-20.7
Uxbridge	29.30	24.54	-16.2	27.07	-7.6	25.44	-13.2
Wakefield	40.40	37.07	-8.2	43.32	+7.2	34.54	-14.5
Wales	25.33	23.17	-8.5	26.36	+4.1	22.52	-11.1
Walpole	41.12	38.38	-6.7	43.80	+6.5	31.99	-22.2

City or Town	1975 Tax Rate	Plans IA & IB Tax Rate	Percent Change	Plan II Tax Rate	Percent Change	Plans IIIA & IIIB Tax Rate	Percent Change
Waltham	$38.03	$35.15	-7.6%	$41.84	+10.0%	$34.66	-8.9%
Ware	37.40	31.36	-16.1	32.69	-12.6	26.47	-29.2
Wareham	30.05	27.71	-7.8	36.16	+20.3	29.43	-2.1
Warren	31.56	26.91	-14.7	27.89	-11.6	24.11	-23.6
Warwick	24.42	21.15	-13.4	28.54	+16.9	22.71	-7.0
Washington	11.45	11.45	0.0	17.17*	+50.0	13.31	+16.2
Watertown	51.02	45.88	-10.1	51.85	+1.6	44.23	-13.3
Wayland	38.87	36.99	-4.8	43.91	+13.0	31.78	-18.2
Webster	33.54	27.02	-19.4	30.20	-10.0	24.94	-25.6
Wellesley	35.40	33.92	-4.2	42.00	+18.6	33.88	-4.3
Wellfleet	11.82	11.28	-4.6	17.73*	+50.0	13.18	+11.5
Wendell	22.74	18.82	-17.2	23.44	+3.1	20.57	-9.5
Wenham	27.81	26.47	-4.8	34.78	+25.1	27.48	-1.2
Westborough	37.64	35.20	-6.5	42.65	+13.3	29.77	-20.9
West Boylston	26.92	24.65	-8.4	29.86	+10.9	26.30	-2.3
West Bridgewater	37.34	34.26	-8.2	39.07	+4.6	30.20	-19.1
West Brookfield	27.05	24.80	-8.3	30.02	+11.0	22.48	-16.7
Westfield	34.20	30.57	-10.6	35.13	+2.7	31.09	-9.1
Westford	37.02	33.63	-9.2	36.81	-0.6	30.48	-17.7
Westhampton	23.88	22.09	-7.5	29.01	+21.5	23.80	-0.3
Westminster	24.15	21.99	-8.9	27.95	+15.7	23.59	-2.3
West Newbury	32.86	31.13	-5.3	33.73	+2.6	23.34	-29.0
Weston	34.57	33.65	-2.7	41.09	+18.9	35.64	-3.1
Westport	23.22	21.01	-9.5	27.97	+20.5	22.53	-3.0
West Springfield	28.53	25.85	-9.4	32.85	+15.1	27.54	-3.5
West Stockbridge	23.33	23.34	0.0	29.17	+25.0	21.40	-8.3
West Tisbury	14.02	13.24	-5.6	21.03*	+50.0	15.20	+8.4
Westwood	39.45	37.62	-4.6	45.72	+15.9	35.14	-10.9
Weymouth	41.10	36.86	-10.3	42.18	+2.6	36.26	-11.8
Whately	17.17	16.44	-4.3	24.65	+43.6	18.17	+5.8
Whitman	40.38	36.11	-10.6	36.79	-8.9	27.29	-32.4
Wilbraham	32.98	30.70	-6.9	34.49	+4.6	26.69	-19.1
Williamsburg	31.70	28.52	-10.0	29.46	-7.1	23.47	-26.0
Williamstown	35.63	33.43	-6.2	40.35	+13.2	27.24	-23.5
Wilmington	34.58	32.09	-7.2	37.88	+9.5	28.43	-17.8

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City or Town	1975 Tax Rate	Plans IA & IB		Plan II		Plans IIIA & IIIB	
		Tax Rate	Percent Change	Tax Rate	Percent Change	Tax Rate	Percent Change
Winchendon	$56.83	$49.73	-12.5%	$49.59	-12.7%	$31.13	-45.2%
Winchester	43.48	41.20	-5.2	48.02	+10.4	36.14	-16.9
Windsor	32.08	29.93	-6.7	35.39	+10.3	27.21	-15.2
Winthrop	36.75	31.93	-13.1	37.83	+2.9	33.42	-9.1
Woburn	36.12	32.73	-9.4	38.04	+5.3	34.07	-5.7
Worcester	64.23	55.33	-13.9	55.38	-13.8	47.29	-26.4
Worthington	17.01	17.01	0.0	23.97	+40.9	18.70	+9.9
Wrentham	32.97	28.99	-12.1	34.02	+3.2	27.23	+17.4
Yarmouth	17.42	16.21	-6.9	25.86	+48.5	18.03	+3.5

Notes: Rates under the different reform plans were computed from figures in previous chapter appendices, with net changes calculated as adjustments from the fiscal year 1975 equalized rates shown in Appendix 4-1.

Estimated property tax rates under the example plans are derived from data presented earlier, as follows:

Plans IA and IB. Estimated nonschool rate after $250 million EMG program using "combination formula" -- relative valuation and nonschool tax effort -- (Appendix 8-1A), plus estimated school tax rate (Appendix 7-4, column 1).

Plan II. Estimated nonschool rate after $250 million EMG program using "combination formula" (Appendix 8-1A), minus rate change due to assessment takeover (derived from Appendix 9-1), minus rate change due to 50 percent state reimbursement of abatements (Appendix 4-1, column 2), plus school tax rate after additional $200 million funding via Chapter 70 (Appendix 7-4, column 2), plus statewide tax rate (11.60 to yield $627 million); results are constrained so that no city or town experiences a total property tax rate increase in excess of 50 percent. In cases where this constraint applies, the tax rate is marked with an asterisk.

Plans IIIA and IIIB. Estimated nonschool rate after $250 million EMG program using "combination formula" (Appendix 8-1A), plus school tax rate under Allocation Plan A (Appendix 7-4, column 3), minus rate change due to 50 percent state reimbursement of abatements (Appendix 4-1, column 2).

Appendix 14-2

Calculations for Example Reform Packages

In order to evaluate the distributional implications of the proposed changes, tables were developed to show the tax burden by income class ($9,000, $15,000, $22,000 and $45,000 and median income)[1] and by type of community for the various plans presented. The income classes were selected on the basis of budget figures published by the Bureau of Labor Statistics for the Boston area. For Autumn 1973, BLS uses a budget of $8,988 for a lower budget family of four, $14,893 for an intermediate budget and $21,986 for a higher budget. The $45,000 income class was derived to show the upper level expenses. Rural towns were selected on a random geographic basis, wealthy suburbs on the basis of relatively high per capita income, central cities from the major SMSAs, rapidly growing suburbs on the basis of generally high population growth from 1960-1970, and older/industrial areas on the basis of historical trends and population density.

Total taxes as a percent of income under the existing tax structure and the five different plans for each group were calculated by summing the income tax, property tax, and sales and excise tax burdens, which were derived using the methods developed below.

Individual Income Taxes

The methodology of calculating the effective tax rates for income taxes under the existing Massachusetts tax is explained in Appendix 11-1. Plans IA, IIIA and IIIB call for a $145 million increase in personal income tax revenue. To raise this revenue under the existing tax structure the tax rate on earned income and interest from Massachusetts savings banks would have to be raised to 5.75 percent with the tax rate on other unearned income raised to 9.75 percent.

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[1]The 1975 estimates of median income by town were calculated by applying a projected growth factor to the 1969 median income figures collected by Joseph Flatley and the Governor's Task Force on Metropolitan Development. The growth factor was calculated using projected national income growth deflated by a factor giving the extent Massachusetts area income growth has lagged behind national growth.

These rates were applied to taxable income as presented in Table 11-1 to arrive at the effective rates. Under the graduated and piggybacking income taxes, a ratio reflecting the new revenue of $1,174.5 million divided by the scheduled revenue of $1,029.5 for 1975 was applied to the graduated and piggybacking rates for each income level which were presented in Table 11-3.

Property Taxes

Property taxes paid were calculated by applying the estimated tax rates under the various plans to the house value for the town and income class under consideration.

House Values. House values by community and by income level are based on data from the 1970 Census of Housing and Census of Population ratios.[1] The data were aggregated into several income groups. The housing value used for each income class was as follows: the value in the $7,000-$9,999 group was used for the $9,000 income class; the value in the $10,000-$14,999 group for the $15,000 income class; the value in the $15,000-$24,999 group for the $22,000 income class; and the value in the $25,000+ group for the $45,000 income class. As a result, the housing value of the $15,000 income class is understated. However, any attempt to extrapolate from the housing values presented only introduced further error into the calculations. When calculating the property taxes for the median income family, the property taxes as a percent of income for each town were calculated separately, using the housing value from the income group corresponding to that of the median income of each town. Then an average figure from the five towns in each group was computed. As a result of the understatement of housing values in the $15,000 income class, the results from the median income calculations do not fall into line with calculations for each income

[1]The data were obtained from Joseph Flatley, Governor's Task Force on Metropolitan Development.

class. For example, the property tax burden computed for the median income of central cities (with average median income of $15,231), differed from the burden computed for the $15,000 income class for the same cities.

Property Tax Rates. The property tax rates and the methods of calculating those rates for the various plans are presented in Appendix 14-1.

General Sales Taxes

Estimated sales tax payments under Massachusetts' present tax rate and base were taken from the "1972 Optional State Sales Tax Table for Massachusetts" in the 1972 Instructions for Form 1040 published by the Internal Revenue Service. For the existing structure and Plan II the figures from this table were divided by income to arrive at the sales tax burden for each income class.

Estimated sales tax payments which would result if the base were expanded were derived from consumption patterns presented in publications by the Bureau of Labor Statistics.[1] Budget expenses were presented for the $9,000, $15,000, and $22,000 income classes. To estimate $45,000 budget expenses all $22,000 budget items were doubled except for cigarette expenses, which were assumed to be the same.

Under Plan IB the sales tax revenue is increased $105 million. This is done by broadening the tax base to include apparel and services (recreation, personal care, household operations) while retaining a rate of 3 percent. To calculate the additional tax revenue, the 3 percent tax rate was applied to the budget expense for each item in the expanded base for each income group.

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[1] Budgets for an Urban Family of Four Persons, 1969-1970, U.S. Department of Labor, Bureau of Labor Statistics. Autumn 1973 Urban Family Budgets and Comparative Indexes for Selected Urban Areas, U.S. Department of Labor, Bureau of Labor Statistics. Budgets for Boston were used. Where the 1973 data for the budgets were aggregated, a ratio between a specific item in the more detailed 1969-1970 study and its total was applied to the 1973 total.

Under Plan IIIB the revenue is raised by $250 million and under Plans IA and IIIA the revenue is raised by $285 million. The increased revenue under these three plans must be reduced by the $35 million tax credit included in the plans. To increase the revenues the desired amount, the existing tax base is expanded to include apparel and services as well as selective excise items: alcohol and tobacco (and meals away from home for the $285 million plans). This expanded base is taxed at 4 percent. Again, the tax rate is applied to the budget expenses for each item in the expanded base. A deduction for the tax credit is reflected in the $9,000 income class percentages. The credit is equal to $20 per exemption for incomes less than $6,000. The credit is phased out by the $10,000 income level. For a family of four with an income of $9,000 the credit amounts to $20.

Selected Excise Taxes

The gasoline excise tax expenditure for each income level was based on the mileage allowance listed in 3 Budgets for an Urban Family of Four Persons, 1969-1970, U.S. Department of Labor, Bureau of Labor Statistics. The mileage allowances by class are as follows: 8,053 at $9,000; 9,465 at $15,000 and $22,000; and an estimated 12,000 at $45,000. Using these mileage figures and the IRS assumed average of 13.75 miles per gallon, the excise tax paid was found in the "State Gasoline Tax Table" in the 1972 Instructions for Form 1040 published by the Internal Revenue Service, under the appropriate tax rate. The existing rate is 7 1/2¢ per gallon. Under Plan IB the gasoline excise tax is increased to 8 1/2¢ per gallon and under Plans IA, IIIA, and IIIB the tax is increased to 9¢ per gallon.

The excise taxes on cigarettes and alcohol were calculated by dividing projected fiscal 1975 state revenues for these items by projected fiscal 1975 retail sales, giving an effective rate of 24 percent on alcohol and 31 percent

on cigarettes. These rates were applied to the budget allowances of each
income level to find the excise tax paid at each level. Tax revenues from the
5 percent meals tax (meals over $1) were also added, based on the expenditure
for this item in the BLS family budgets. None of the plans implies changes
of the taxes on these excise items.